

DAILY METAL REPORTER

MONTHLY SUPPLEMENT

# METALS

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### **OUTLOOK FOR NONFERROUS METALS**

By SIMON D. STRAUSS

Vice President, American Smelting and Refining Co.

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By CLIFFORD WAITE

Chairman, Consolidated Tin Smelters Limited

### **BRITISH METAL MARKETS**

By L. H. TARRING

London, England

### **DOMESTIC METAL MARKET REVIEW**

### **U. S. METAL IMPORT DUTIES**

### **WASHINGTON REPORT**

### **METAL STATISTICS**

**SEPTEMBER  
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## Two LINE Editorials

It's depressing to observe how frequently some politician nowadays calls some other politician a liar, but it is even more depressing to think how often they are right.

\* \* \*

A statistician predicts that within fifteen years everybody will have an automobile. But it will take a lot of the sport out of driving if there are no pedestrians.

\* \* \*

Scientists announce the discovery of a way to make concrete using bubbles in place of the sand. That might be all right if good, strong bubbles are used.

\* \* \*

Swiss watch manufacturers, angered by our increase in the duty on Swiss watches, say they will retaliate. You mean they plan to give us the works?

\* \* \*

Events in Korea and Indo-China make it appear that the world's statesmen are more successful in making divided nations than united nations.

\* \* \*

A political writer says that to win in the 1954 and 1956 elections the Republicans must satisfy more Democrats. Have they given up the idea of satisfying the Republicans?

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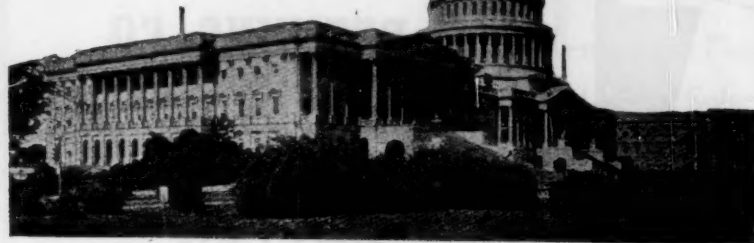
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# Washington Report



September 10, 1954

**W**ITH Congress not in session, the General Services Administration during the month in review continued to provide most of the Washington news of interest to the metal industry. It appeared that the GSA was achieving or beginning to achieve one of the objectives of the Administration's new long-term stockpiling program for lead and zinc—higher prices for both metals.

In announcing the Administration's new stockpiling policy, President Eisenhower in a letter to Chairman Millikin of the Senate Finance Committee and Chairman Reed of the House Ways and Means Committee, said he believed his action "will help bring about the attainment of market prices for lead and zinc that are sufficient to maintain an adequate domestic mobilization base." Since the President's announcement on August 21 directing a stepped-up purchasing program of lead and zinc for the national stockpile, prices for both metals have advanced 0.50c a pound. Industry quarters, while welcoming the increases, do not yet believe that "market prices . . . are sufficient to maintain an adequate domestic mobilization base."

On August 31, the GSA again requested offers of domestically produced lead and zinc for the national stockpile. GSA buying conditions were the same as in the past; that the metal must have been mined after April 1. Deliveries must be made by November 15.

## Stockpile Procurement

Over 80 per cent of the strategic and critical materials now being stockpiled are being procured from Asia, Africa and other areas abroad, Senator George W. Malone (Rep., Nev.) stated in releasing the completed text of Senate Report No. 162 on accessibility and availability of such materials. Sen. Malone is chairman of the Subcommittee on Minerals, Materials and Fuels Economics.

The Senator said that testimony before the committee "reveals the dangerous extent to which the security of the nation has been jeopardized by past and recent procurement policies," and that in time of war materials from these distant areas "would be denied to us."

## Senators To Tour America

Sen. Malone also announced that subcommittee members will visit South and Central America to investigate the availabilities there of strategic materials necessary in time of war or for the expanding U. S. economy. The subcommittee will depart by air on November 5 and visit Cuba, Jamaica, Venezuela, Brazil, Argentina, Chile, Peru, Ecuador, Bolivia, Columbia, Panama and Mexico.

The Administration is set to com-

plete a deal for swapping 100,000 tons of surplus wheat for three Brazilian strategic materials. The wheat will be traded for thorium, needed by the Atomic Energy Commission, rare earths and monazite, the source of both thorium and rare earth. Final details of the proposed barter transaction have yet to be worked out before the trade agreement is signed.

## Another Tariff Battle?

Another battle in Congress over tariffs may be shaping up. President Eisenhower, in a letter to Harry A. Nullis, board chairman of General Mills and a member of the board of trustees of the Committee for National Trade Development, said he will ask the next Congress to give priority to legislation for a gradual 15 per cent reduction in tariffs.

The President had asked the recently-adjourned 83rd Congress for a three-year extension of the Reciprocal Trade Agreements Act and for a gradual reduction in tariffs. The Congress, however, enacted only a one-year extension of the trade law, without any provisions for the tariff reduction requested.

## Ease Metal Export Curbs

Exporters now may ship more than 650 additional commodities to most countries without applying for individual export licenses, the Commerce Department's Bureau of Foreign Commerce announced. BFC's new Positive List of Commodities will contain 787 entries compared to a total of 1,450 entries previously listed.

Items removed from the Positive List, effective August 26, include many steel and mineral products; ores and metals and manufacturers; industrial, electrical, construction and agricultural machinery, and machine tools.

In a separate announcement, the

Foreign Operations Administration emphasized that its new list of products embargoed against shipment to the Soviet bloc of nations in Europe include titanium-producing equipment.

## ODM Actions

The Office of Defense Mobilization announced several actions during the month in review. ODM reported it has consolidated six expansion goals into a single new goal which provides for issuance of quick tax write-off allowances covering facilities "whose products are necessary to meet military and atomic energy requirements." The six old goals closed down covered facilities for production of military aircraft, metal ammunition boxes, military vehicles and engines, military electronic items, military photographic equipment, and ordnance facilities.

Also covered by the new goal are "one-of-a-kind" military or atomic production facilities for which expansion goals have never been set, as well as certain special type facilities for which expansion goals have been closed.

## To Maintain Key Plants

ODM also announced a major new program to maintain key U. S. defense plants in a "ready-to-roll" condition after their present Government contracts run out. Total cost of the program after it gets under way could run to "several hundreds of millions of dollars each," according to an ODM spokesman.

The ODM plant maintenance order, effective August 25, makes it clear the Administration intends to pursue a "broad base" program similar to the one outlined by former ODM Chief Henry Fowler, who issued the first ODM order on the subject in the closing days of the Truman Administration. But it leaves no doubt that the present Administration is opposed to the use of Government procurement solely for the purpose of keeping defense facilities in readiness for a future emergency.

## Manganese Ore Buying Delayed

The Government will delay launching its expanded purchase program for low grade manganese ore until the completion of certain research projects and a review of the quality of ore now in the stockpile are destined for the stockpile, ODM Director Arthur S. Flemming announced.

Mr. Flemming said that "in view of the high cost of ores to be obtained under the purchase program and in view of the issues that have been raised as to the use that could be made of the low-grade ores in an emergency, it has been decided that before considering further any expansion of these operations, it would be advantageous to await the outcome of research projects to be completed during the balance of the year. . ."

Under the original program, a maximum of 6,000,000 long tons of the low-grade ore could be purchased at each of the Government depots at Wenden, Ariz., and Butte, Mont.

## New Aluminum Facilities

GSA reported that aluminum production from new facilities created under the expansion program will

(Continued on page 19)

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# BASE METAL PRICES MUST BE COMPETITIVE WITH OTHER MATERIALS AND FUTURE SUPPLY ASSURED

## Improved Outlook for Copper, Lead, Zinc Depends on Producers' Efforts To Boost Consumption; Gov't Aid Can't Solve All of Industry's Problems

By SIMON D. STRAUSS, Vice President, American Smelting and Refining Company

**S**INCE 1947 industrial production of the country has increased between 25 and 30 per cent, as measured by the Federal Reserve Board Index. In the same period consumption of copper and lead in the United States has declined slightly and consumption of zinc has increased by a very modest amount.

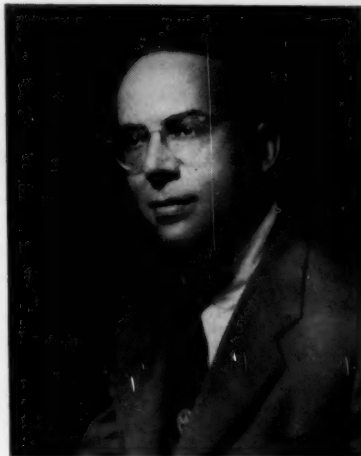
In the past we have tended to think of consumption of these basic metals as varying directly with industrial activity. The sharp divergence in the trend between overall industrial activity and the use of the non-ferrous metals in the last seven years, therefore, is disturbing.

With an expanding population, with the rapid development of science and of production techniques, and with the enormous accumulated savings of the public as background, most economists agree that this country faces a period of further industrial growth and of still higher standards of living for its people. But will the non-ferrous metals share in this improvement?

It cannot be taken for granted that they will. Other industries which in the past were considered of equal basic importance have not participated in recent economic expansion. Coal is an outstanding example. Butter is another. And just the other day in the press a government official was quoted as decrying the fact that consumption of potatoes, on a per capita basis, has fallen every year for the last fifty. Our grandfathers gorged themselves on an average of 160 pounds of spuds a year, whereas today we make do with only 100 pounds.

### Priced Out Of Market

In the case of coal, butter, and potatoes, the reasons that caused them to fall behind in the industrial parade are fairly clear. The discovery and rapid development of petroleum resources, both here and abroad, created a major economic competitor for coal. The steadily rising level of wages hurt the high-labor-factor coal industry far more than it did the oil pro-



SIMON D. STRAUSS

ducer. The consequence has been that coal has been priced out of much of its market.

The case history of butter is not too dissimilar from that of coal. Vegetable margarines provide an acceptable and cheaper substitute for butter. Government stockpiling has helped the dairy farmer get a good price for his product, but the price has been such that it has accentuated the swing to margarine. The butter goes in the stockpile and the margarine goes on the table.

As for potatoes, technological obsolescence seems to account for a good share of their relative decline in importance on the dinner table. People have learned to get food energy from other sources which they consider less provocative of expanding waist lines. In recent years also, the potato farmer has looked to the government for help through price supports and stockpiling; he has received this assistance, but it has not helped him to sell potatoes to the public.

### An Ominous Parallel?

Is there an ominous parallel between coal, butter and potatoes on the one hand, and copper, lead and zinc on the other? Is the relationship of aluminum to the older non-ferrous metals the same as that of oil to coal or of margarine to butter? Is stockpiling of metals likely to result in

shrinking or static sales to consumers just as stockpiling of butter by the government has been paralleled by a drop in sales to consumers?

These questions deserve hard and serious thought by the mining industry. It would be foolish indeed to jump hastily to the conclusion that the period of expanding use of the non-ferrous metals is ending; but it would be equally foolish for this industry to believe that stockpiling or higher tariffs or subsidies are the answer to all its problems.

### Use Should Show Some Increase

Here are some factors that merit consideration on both sides of the equation:

1. One cannot expect that consumption of copper, lead, and zinc would in any case rise as much as over-all industrial activity. Much of the new economic growth of the country is in such fields as electronics and aviation, which are enormous users of man-hours but small users of raw materials. The Paley Commission report, to which many mining men took exception in respect to particular items, estimated that by 1975 gross national product might have doubled as compared with 1950, but raw material demand, over-all, would increase only between 50 and 60 per cent. The same commission estimated the increases for copper, lead, and zinc during the same period at 43 per cent for copper, 78 per cent for lead, and 39 per cent for zinc. Even if these particular estimates are open to question the principle of a slower rate of growth for raw materials is clear. Consequently, one should not consider that the metals are falling by the wayside if their use does not increase quite so rapidly as over-all economic activity. But obviously, consumption should show some increase if the industry is to maintain a healthy economic position.

### Inelastic Capacity

2. One factor that has hurt copper, lead, and zinc has been the relatively inelastic capacity of these industries. U. S. capacity to produce aluminum was doubled in three years (1951 to 1954) in response to the Korean crisis. A corresponding increase in copper, lead, and zinc would have been virtually impossible in the same period of time, no matter what economic incen-

Address delivered before The American Mining Congress, September 23, 1954, San Francisco, Calif.



tives were offered to the producers. The reason for the greater speed in expanding aluminum is that bauxite reserves are high-grade, easily mined, fairly abundant, and account for only a small part of the over-all cost of producing aluminum. To expand aluminum output is a question of providing power and processing facilities. With copper, lead, and zinc, expansion is only possible when new ore deposits have been found. Relatively few commercial deposits are lying unexploited and available for quick development in the event of an emergency. The new ones require extensive and expensive preparation and equipment.

#### Use Of Other Materials

3. The fact that additional supplies of copper, lead, and zinc cannot be made available as rapidly has led to a pronounced tendency on the part of planners of military equipment and supplies to design away from the base metals and into aluminum or steel. And once a military requirement has been established and additional aluminum or steel capacity has been built to meet it, then the expanded supply hangs over the market in peacetime. The intelligent and aggressive drive for markets made by the aluminum producers has been premised on the promise to consumers that ample aluminum will be available. Consumers are less certain of base-metal supply. Copper has lost ground to aluminum in the fields of electrical conductors and hardware, zinc is faced with aluminum competi-

### INDUSTRIAL PRODUCTION AND METAL CONSUMPTION IN THE UNITED STATES

	Industrial Production	Copper Consumption	Lead Consumption	Slab Zinc Consumption
		(000 Tons)	(000 Tons)	(000 Tons)
1934 .....	40	397	488	360
1935 .....	47	508	539	473
1936 .....	56	721	634	582
1937 .....	61	785	679	610
1938 .....	48	527	546	421
1939 .....	58	793	667	626
1940 .....	67	960	782	719
1946 .....	90	1,231	956	801
1947 .....	100	1,338	1,172	786
1948 .....	104	1,394	1,134	818
1949 .....	97	1,053	958	712
1950 .....	112	1,438	1,238	967
1951 .....	120	1,395	1,185	934
1952 .....	124	1,391	1,131	853
1953 .....	134	1,376	1,202	978
1954 Est. ....	125	1,275	1,140	864

#### Sources:

Industrial Production: Federal Reserve Board Index.

Copper Consumption: U. S. Copper Ass'n., Consumption by Fabricators.

Lead Consumption: 1934-40, A. B. M. S.; 1946-54, U. S. B. M.

Zinc Consumption: 1934-40, A. B. M. S.; 1946-54, U. S. B. M.

tion in die-casting and galvanized sheets, and lead is now threatened with aluminum applications for cable coverings.

4. A further factor which has tended to encourage the substitution of aluminum for the base metals is the relative price stability of aluminum. The limited number of producers and the relatively low labor factor in its cost of production are the two principal reasons why the aluminum in-

dustry has been able to avoid frequent price changes. There are some who feel that the base metals should adopt a similar policy. Desirable as this may seem, the very nature of the industry makes it impractical. The large number of producing entities, many of which are not directly sellers, prevents rapid curtailment of production when demand drops. Unit costs mount sharply on declining volumes, so the average mine con-

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tinues to produce at full capacity until receding prices caused by surplus stocks forces some to close. In other words, demand for base metals varies considerably but supply tends to remain constant—the inevitable result is wide swings in price.

#### Prices Influence Consumption

5. Prices do have an effect on the volume of consumption, but the effect is a delayed one. Each time the price of lead or zinc was reduced during 1952 and early 1953, one heard the sage remark that "They won't sell any more metal at the lower price than they would have at the old one." This is undoubtedly true over a short period of time—say six months or so. But over a long period of time, price has a most important bearing on the volume of consumption. I am personally convinced, for example, that if copper stays at 30c a pound for an indefinite period of time its use will be considerably lower than it would be if its average price in the future were to be 24c a pound. Whether demand at 30c will still be large enough to absorb the available supply is another question; the point is simply that price does affect demand eventually—when consumers are convinced that it is going to stay high or stay low, as the case may be. To offer a simple illustration, I refer again to the wide-scale substitution of fuel oil for coal as a source of power and of heat. The relatively high price of coal caused this; the temporary dip in coal prices that occurs in slack seasons is not enough to reverse the trend.

#### Domestic Tariff Wall

6. To say that low prices are caused by the dumping here of metal produced abroad, therefore, is an oversimplification of a complex problem. Prices of lead and zinc are lower today than they were at the time of the Korean war in part because the demand for these two metals was adversely affected by their high prices at that time. A tariff wall might protect the domestic miner from foreign competitors; it would not protect him from aluminum or other substitute materials. And if, by virtue of a tariff wall to keep out imports, the United States price is maintained at a level that causes a reduction in over-all demand, then even the domestic mine production may eventually be in excess supply.

7. The President within the last forty days has decided that for the present at least the problems of the lead and zinc industry can best be met by accelerated stockpile buying—at the rate of 200,000 tons of lead and 300,000 tons of zinc of domestic origin a year. These figures are roughly two-thirds of the current rate of mine production and about half the 1951-1952 rate of domestic mine production. Even with the large stocks of zinc overhanging the market when the program began, its effect promises to be to move prices upward. In fact, the initial announcement of stockpile buying in March was primarily responsible for the market strength in the prices of these two metals during the Spring. For the

(Continued on page 19)

## BUSINESS IN MOTION

### *To our Colleagues in American Business...*

There is an interesting story behind the brass forging shown here. It is part of a high-pressure lubricator. Originally a casting was used, but this proved to be more expensive than expected, due to blow holes, sand inclusions and the like; there were too many leakers, too many rejects. It then was decided to assemble the part out of four different brass items. The bottom was a forging, the top was machined out of round brass rod, and the two side supports were rectangular brass rod. To assemble, the four parts had to be accurately aligned, and silver soldered together. The result was an improvement, but costs were still too high, due to the time-consuming assembly process, and the expensive silver solder.

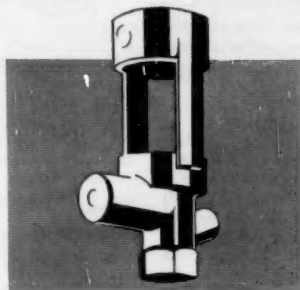
It was then suggested that the entire part perhaps could be made as a one-piece forging. Could Revere do it? We thought we could, and our forging people sat down with the lubricator manufacturer, studying blueprints and specifications. When both parties thoroughly understood both the possibilities and the limitations a bid was made, and accepted. Introduction of the forging on a production basis showed sizable economies. Machining is done more quickly, output is increased, rejects have decreased to practically zero. In addition, the part is better in every way.

The forging process is an excellent one, and has wider applications than many

people realize. As in the case reported here, rather intricate shapes can be forged, shapes that many people would consider would have to be built up of several parts. The Revere files contain many similar examples of parts formerly expensively put together but now delivered to the customer in a one-piece forging, with resultant economies.

Revere produces forgings in copper, brass and other copper-base alloys, and in aluminum alloys. Many forgings begin as extruded shapes which have the correct

form to fit the forging dies with a minimum of "flash." When the dies close on the hot metal, design details, including names and numbers, are accurately reproduced. The metal is dense, being twice wrought, and has a typical smooth



forged finish. Customers find that a Revere forging usually is ready for assembly after a minimum of simple machining operations.

The point about this story is that Revere, as a supplier, was able to collaborate with a customer, and show how to use a special process to make an intricate part better and at less cost. Perhaps your business, no matter what it is, could benefit by the knowledge and skill of your suppliers. They know what can be done with their materials. Why not take them into your confidence, and ask them how you can save money? It might very well pay you handsomely.

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# BOLIVIAN TIN MINES WOULD NOT HAVE TO CLOSE IF GOV'T SMELTER AT TEXAS CITY CEASES OPERATIONS

Europe Could Treat Concentrates as Was Done Prior to Building of U. S. Plant in 1941; 'Price Gouging' Charge Held to Be Untrue

By CLIFFORD WAITE, Chairman, Consolidated Tin Smelters Limited

**W**ORLD production of tin in concentrates for the calendar year 1953, as reported in a recent issue of the Statistical Bulletin, showed an increase of 5,000 tons at 175,500 tons, for which Bolivia and the Belgian Congo were mainly responsible.

World consumption of tin according to the same source showed no change over 1952 at 130,000 tons. Consumption in the United States of America increased by about 8,600 tons, but this was offset by decreases in the consumption during 1953 of the United Kingdom—the world's second largest consumer—and the Netherlands and Western Germany.

## 1953 Tin Surplus

Apparent world surplus of tin production in 1953 was therefore 45,500 tons. Due to the stockpiling program in the United States of America and the "insulation" of stocks which that country had accumulated through its official purchases of tin and tin in concentrates, very little, if any, of this surplus production found its way to consumers through the normal channels. The same will probably be true of the year 1954 in view of the prolongation of the operations of the Texas City Smelter and the U. S. A. Government purchases of tin and tin concentrates from Indonesia, Bolivia, Thailand and Portugal.

## The Geneva Tin Conference

In my statement last year I referred to the possibility of the reconvening of the United Nations Geneva Conference on Tin. Most of the member governments having expressed themselves in favor, the Conference reassembled on November 16, 1953, and continued its deliberations until December 9, 1953. The Conference considered a Draft Agreement which had been prepared in London in August, and other proposals, and produced the International Tin Agreement (Geneva) 1953. This Agreement was open for signature in London from March 1, 1954, to June 30, 1954, by governments represented by delegates at the 1953 Session of the United Nations Tin Conference.

At least nine of the eighteen consuming countries present at the Con-

ference, holding together at least 333 of the total votes relating to consumers, and producing countries holding together at least 900 of the total votes relating to producers are required to ratify the Agreement.

## Signatory Governments

The Agreement was closed for signature on June 30, 1954, and it is reported that the following governments have signed:

Producers		Votes
Country		
Belgain Congo and Ruanda		
Urundi	.....	90
Boliva	.....	213
Malaya	.....	360
Nigeria	.....	58
Indonesia	.....	213
Thailand	.....	66

1,000

Consumers		Votes
Country		
Australia	.....	16
Belgium	.....	14
Canada	.....	37
Denmark	.....	10
Ecuador	.....	5
France	.....	55
India	.....	29
Japan	.....	26
Netherlands	.....	36
Turkey	.....	11
United Kindom	.....	145
Spain	.....	10
Italy	.....	28
Lebanon	.....	5

427

The Agreement will still require ratification by signatory governments but it is significant that nearly all the participating countries have signed and thus recorded their belief in the benefits which will accrue from such an Agreement.

## United States Decision

The Government of the United States of America announced on March 5, 1954, that it would not sign the International Tin Agreement drawn up at Geneva in December 1953. In making this announcement the Government made it clear that the United States did not object if other countries decided to bring the Agreement into force, and also declared that it was aware of the importance attached to the Agreement by other governments. The State Department also stated that since the Agreement could

come into force and be operated without the United States' participation, it did not anticipate that the United States' decision would prevent the Agreement from becoming effective.

The decision of the United States Government to wind up the Reconstruction Finance Corporation on June 30, 1954, has naturally led to speculation about the future of the Texas City Tin Smelter which has been managed by that Corporation.

## President Eisenhower's Message

President Eisenhower in his Budget message to Congress on January 22, 1954, said:

"By the end of the present fiscal year, (June 30, 1954), the Government will have completed purchases of tin for the national stockpile. World supplies are already adequate to meet current requirements. As a result there may no longer be a need for the continued operation of the Government Tin Smelter in 1955. Pending outcome of international negotiations, the Budget assumes withdrawal of the Government Smelter from operations at the end of the fiscal year 1954" (i.e. June 30, 1954.)

Mr. Cravens, the then Administrator of the Reconstruction Finance Corporation, told the Senate Banking and Currency Committee in March of this year that there is now enough tin in the United States Government stockpile to last for six years at the present rate of consumption, and very possibly for ten years. From this statement it would appear that the stockpile must now contain at least 300,000 tons of tin. Mr. Cravens recommended to Congress that the Smelter be closed on June 30, 1954, and added, "I personally feel strongly that the justification for a Government tin program no longer exists."

## Subsidized Competition

With these official statements I was hopeful that by June 30, 1954, Texas City Smelter would have ceased to operate as a Government subsidized plant and that with the demise of the Reconstruction Finance Corporation at that date, an official Government ore buying organization would have disappeared.

However, due to opposition sponsored particularly by Senator Lyndon Johnson and Representative Clark Thompson, both of Texas, who, no doubt, had their political interests in mind, the House Banking Committee of Congress approved legislation directing the Government to continue operating the Smelter until June 30, 1955. It appears certain, therefore,

Excerpts of report by Mr. Waite, for the year ended March 31, 1954, at annual general meeting of Consolidated Tin Smelters Limited, London, England, on August 19, 1954.

that until June 30, 1955, we shall again be faced with competition from a non-commercial and subsidized source for the supply of tin concentrates, particularly those produced in Thailand, Portugal and Bolivia.

I would not attempt to dispute the rights of any Senator or Representative of the U. S. Congress to protest against the closure of a plant which operates in his particular State, but I do strongly take exception to the statements, oral and written, which have been made by Senator Lyndon Johnson. Senator Lyndon Johnson was—if not the author—the signatory of a report on tin in the Sixth Report of the Preparedness Subcommittee of the Committee on Armed Services, United States Senate, issued on February 12, 1951. The accusations of gouging which were made against the world tin producers in that Report have been refuted by those most competent to deal with them. Mr. Ernest V. Pearce as Chairman of your Company ably dealt with this serious accusation in his Statement accompanying the Accounts for the year ended March 31, 1951.

#### Senator Lyndon Johnson's Letter

I would have allowed this matter to rest had not Senator Lyndon Johnson referred again to it in a letter which he wrote to President Eisenhower urging him to keep the Texas City Tin Smelter in operation. According to this letter, the Senator stated:

"The Texas City Tin Smelter has been a potent weapon in America's battle against the price gouging international tin combine. Our present tin position may be strong but there is no assurance that the tin combine will not return to its price gouging at the first available opportunity. If the Smelter is closed down, we will then be weaponless in the face of price manipulations by international operators.

"Even more significant would be the effect on national security of closing the Smelter. Since many of the Bolivian mines would almost certainly close shortly thereafter and deteriorate, we would be without access to adequate Bolivian ores in times of national emergency. Furthermore, it is the firm belief of many experts on Bolivian economy that the closing of the mines would almost certainly be followed by a collapse of the Bolivian economy and the strengthening of the Communist Party in that county."

Senator Lyndon Johnson enclosed with his letter two reports issued by the Senate Preparedness Committee, one of which was, no doubt, the report to which I have already referred.

#### Unfounded Accusations

I have two comments to make on Senator Lyndon Johnson's letter to President Eisenhower. First, I must protest against the revival of his accusations of price gouging which are unfounded and completely untrue. If Senator Lyndon Johnson cannot advance any proof of these statements, then he should have the grace to withdraw his allegations.

Secondly, the Bolivian mines would have no reason to close because the Texas City Smelter ceased operations. I am glad to take this opportunity of refuting the statements which have been made in the U. S. A. that the Bolivian production of tin concentrates can only be treated at Texas City. The whole of the Bolivian production of tin concentrates was smelted in Europe before the erection of the Texas City Smelter in 1941 and they could again be smelted in Europe on terms which would compare favorably with any plant not in receipt of a subsidy.

#### A False Sense of Security

The prolonging of the operations of the Texas Smelter from year to year is lulling the Bolivian Government into a false sense of security. It is surely essential for the economy of a country such as Bolivia that they should enter into a long term contract for their production of tin concentrates so that they can be assured for some years of an outlet which will enable them to plan ahead. One of our subsidiary companies submitted what I consider to be commercially competitive terms for a five year contract for the major part of the production which has been shipped to Texas since 1941, but the decisions to extend the Texas City Smelter operations will probably mean that such production will continue to go there until June 30, 1955.

I should also like to state for the benefit of the United States and Bolivian Governments that we are deeply interested in the economy of Bolivia and the profitable continuance of its tin mining, because it is on an active mining industry that Bolivia depends for its livelihood and it is also upon a satisfactory throughput of tin con-

centrates at our plants that we, as a company engaged in private enterprise, largely depend.

Production in Bolivia in 1953 was maintained at a rate slightly higher than that of the previous year.

Nigerian production of tin concentrates remained at approximately the same level as for 1952.

#### Production in Malaya

As regards Malaya, production in that country for the year to December, 1953, showed a small decline at 56,225 tons as compared with 56,838 tons for the year to December 1952. Post-war production in Malaya reached its peak in 1950, since when it has shown a slight decline annually as indicated by the following figures:

1950	.....	57,537 tons
1951	.....	57,167 "
1952	.....	56,838 "
1953	.....	56,255 "

In my view this trend will continue, depending to a certain extent upon the price of the metal, until prospecting can be resumed on a wider scale.

#### Position in Thailand

Production of tin in Thailand during the calendar year 1953 showed a small increase over that of 1952. During the past few years the Reconstruction Finance Corporation of America has completed strongly for concentrates produced in Thailand for shipment to the Texas City Smelter. With the impending dissolution of the R. F. C. at the end of June 1954 the competition diminished and gradually disappeared during the later months of 1953. Certain competition has developed from Brazil for these concentrates at terms which make it impossible for the Malayan Smelters to compete. Such terms included a bonus over the Singapore price and the omission of all smelting charges and payment in a choice of currencies which included sterling, U. S. dollars, Siamese ticals, or Malayan dollars.

Malayan Smelters, although selling a large part of their production in the United States of America, are unable to pay in U. S. currency and therefore any return to free convertibility of sterling will be greatly welcomed by them. There are now signs that at some time probably towards the end of the year or early in 1955 sterling may be made freely convertible, and if this should occur, it would be a decided advantage to all who trade in international commodities.

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# LONDON COPPER MARKET FIRMER ON STRIKES IN U. S. AND CHILE AND GOOD CONSUMING DEMAND IN EUROPE

U. K. Lead, Zinc Prices Rise Following New American Policy;  
Tight Tin Spot Supply Situation Later in Year Seen Possible

September 6, 1954

**T**HE past month has been an eventful one in the world copper situation and this has not been without its effect on prices on the London market. The extent of the strikes which developed in the United States and in Chile and which have already cost the market such a lot of copper from lost new production, has not unnaturally resulted in a considerable firming up of the tone over here, with the result that in the past four weeks or so forward copper has risen by roughly £6 a ton, but spot has jumped up fully twice this amount so that the backwardation now amounts to some £6.10s. a ton, and there is not a great deal of cash copper available even at the current enhanced prices.

## Consuming Demand Good

Consuming demand in Europe, including the U. K., has been running at a very good level, the holiday quietness being very shortlived this year owing to the good state of fabricators' order books, and uncertainties regarding the future supply position of the raw metal. As far as can be seen, consumption on this side of the Atlantic will be fully maintained, at any rate until the end of the year, although buying has naturally been a little intensified during the past week or two owing to the strike news and the fact that some consumers here were not fully covered.

It has been a complaint of consum-

By L. H. TARRING  
London, England

ers for some time that the London Metal Exchange cash quotations did not fully represent the world market price for electro wirebars, a number of producers asking and receiving a premium of £2 a ton over the L. M. E. cash price.

## LME To Modify Contract

Although the Metal Exchange, in an attempt to improve the situation, has now decided to introduce modifications to its standard copper contract as from January 3, 1955, (placing it on a warrant basis and eliminating

the option in sellers' favor of delivering material ex ship within 10 days, or ex U. K. works within 10 days), some doubts linger as to whether this will have the desired effect of making the cash price fully representative of the world electro wirebar quotation.

## Adjust Selling Prices

As a result the wire rod rollers have now adjusted their selling prices to take account of a £2 a ton premium over the London Metal Exchange price, even though all producers are not asking such a premium.

Having regard to the considerable quantities of Chilean copper which have been sold to Europe in recent months, the big strikes in Chile are bound to affect the supply position on this side of the Atlantic as well as

## U. K. COPPER STATISTICS

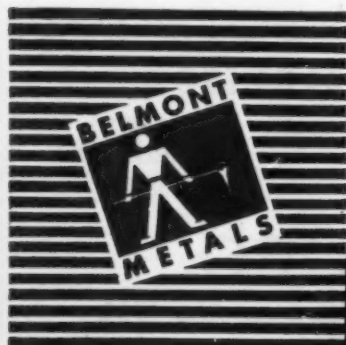
The British Bureau of Non-Ferrous Metal Statistics reports U. K. stocks at the end of June as 68,037 tons compared with 65,314 tons at the end of May; of the June figure 21,157 tons were blister (15,866 tons) and 46,880 tons were blister (16,866 tons) and 46,880 21,546 tons of refined, stocks in L. M. E. approved warehouses accounted for 225 tons blister and 1,775 tons refined, and other stocks 20,392 tons blister and 23,559 tons refined. Production during the month of primary refined was slightly higher at 10,643 tons (10,420 tons) also that of secondary blister 864 tons (853 tons), but that of secondary refined fell to 6,603 tons (7,272 tons). Consumption was higher at 49,474 tons (47,298 tons).

The following figures show output of main copper and alloy products during June, in long tons:

	Copper content of output		
	June 1954	—Jan.-June— 1953	1954
UNALLOYED COPPER PRODUCTS			
Wire .....	16,535	72,240	66,594

Rods, Bars and Sections .....	2,001	6,093	11,681
Sheet, Strip and plate .....	5,057	20,304	28,816
Tubes .....	3,500	18,737	22,073
Castings and Misc. .....	500	3,000	3,000
ALLOYED COPPER PRODUCTS			
Wire .....	1,114	4,158	6,124
Rods, Bars and Sections .....	6,864	26,844	39,507
Sheet, Strip and Plate .....	7,475	35,583	41,996
Tubes .....	1,124	6,372	6,409
Castings and Misc. .....	3,846	19,707	24,958
Copper Sulphate ..	1,158	6,744	6,677

Total All Products	49,474	219,782	277,835
of which:			
Consumption of virgin .....	37,109	113,090	212,627
Secondary .....		39,711	
Consumption of Copper & Alloy Scrap (copper content)	12,363	66,981	65,208



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in the United States and unless the strikes are settled fairly soon some covering problems may arise for users who were relying on such metal. Germany has been buying some fire refined metal from this country, which will probably be taken up off the market and present indications are that the spot position on the Metal Exchange will continue tight for the time being and it is not at all certain that the backwardation may not widen a little further yet.

#### Sharp Reverse In Tin

Early in August the tin market suffered a rather sharp reverse from which it has not fully recovered as far as prices are concerned. This did not appear to be due to any outstanding development but just to marked absence of consumer buying for a time which resulted in the Eastern price being marked down heavily and London following suit.

Taking the broad position there seems no reason to be particularly bearish about tin. At the moment there is no shortage of the metal either in the United States or in Europe, but having regard to the improving level of consumption which has become manifest in recent months, the gap between mine output and industrial consumption has narrowed and is more than covered by the quantities of tin which the U. S. Government is taking off the market. As a result no great surprise would be felt here if later in the year quite a tight spot supply position were to develop.

#### French Proposal

Meanwhile, the French seem to have been successful in getting quite a lot of support for their proposal that the ceiling price under the International Agreement should be reduced from £880 to £840 a ton and it now looks

#### U. K. TIN STATISTICS

The British Bureau of Non-Ferrous Metal Statistics reports U. K. stocks of tin at the end of June as 4,075 tons compared with 4,347 tons at the end of May. Of the June figure consumers held 1,520 tons (1,470 tons) and other stocks 2,555 tons (2,877 tons). Production in May (the latest figure) was 2,721 tons compared with 2,696 tons in April. Consumption at 1,860 tons was higher than the 1,732 tons in May.

The following figures show consumption of tin by main trades in long tons:

	June 1954	Jan.-June 1953	1954
Tinplate .....	943	4,658	5,124
Tinning .....	129	650	759
Solder .....	164	695	1,054
Alloys .....	469	2,686	2,762
Wrought tin .....	60	279	395
Chemicals .....	86	301	453
Other uses .....	9	51	70

Total all Trades ..... 1,860 9,320 10,617

as if this will go through. It is perhaps unwise to mount chickens before they are hatched and until the agreement is duly ratified by the signatory countries it cannot be assumed that it will necessarily become operative, but the International Tin Council is meeting on September 20 to carry as far as it can preparatory work for the operation of the scheme. Similarly in Malaya and elsewhere steps are being taken to prepare machinery to operate the scheme.

#### Texas City Smelter

Some surprise was felt here when it was learned that yet another American Government investigation of the tin situation is to be made to determine whether it is desirable to keep the Texas City tin smelter in operation for strategic purposes or not. To most people over here the facts appear to be fairly well established and the impression is growing that continued operation of the smelter possibly owes more to political considerations than to purely strategic requirements, when it is borne in mind how much tin is held already by the U. S. Government in its strategic stockpile and elsewhere.

The demand for tinplates both here

and abroad seems to be keeping up at a high level and although world productive capacity has been rising quite appreciably in recent years so far output seems to be able to be disposed of without very much difficulty. Whether all the hand mills will still be required in the U. K. after the big Velindre strip mill plant comes into operation is, however, regarded as doubtful.

#### U. S. Lead, Zinc Policy

In recent weeks all other influences on the lead market have been eclipsed by the striking announcement made by President Eisenhower as to the U. S. Government's policy for assisting U. S. domestic lead and zinc producers without increasing the U. S. import duties on these metals.

As might have been expected the immediate effect on prices over here was to harden them and some quite good advances have been marked during the past month. There is general satisfaction that no attempt was made to raise the U. S. import duties, as all along it has been felt here that this would not have had the desired effect of raising prices and in fact would have depressed world market rates.

#### Can They Hold Customers?

What is perhaps attracting most attention here is whether the U. S. producers will be able to sell up to the maximum quantities the Government is now prepared to take for the stockpile without losing regular customers to foreign metal and, secondly, the extent to which foreign supplies of lead and zinc are likely to be acquired under the proposed program of bartering surplus U. S. agricultural products.

It seems unlikely that either Canada or Australia, for example, will wish

(Continued on page 19)

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# United States Duties on Principal Ore and Metal Imports

(Including Revisions in Effect June 6, 1951, Under Torquay Agreements)

(Quantities Are in Pounds Unless Otherwise Stated; n.s.p.f. Stands for "Not Specially Provided For.")

## COPPER

NOTE—The excise tax of 4c a pound on copper (which was reduced to 2c a pound by the Geneva Trade Agreement) was suspended in April, 1947, until March 31, 1949, and on expiration it was further suspended until June 30, 1950. The tax was reimposed on July 1, 1951. It was suspended again on May 22, 1951, retroactive to April 1, 1951, and until February 15, 1953, and again until June 30, 1954. Suspension further extended to June 30, 1955.

Copper ore and concentrates, usable as flux, etc., copper content .....	free
Copper ore and concentrates, product of Cuba and Philippines, copper content .....	free
Copper ore and concentrates, copper content .....	free
Regulus, black, or coarse copper, and cement copper, copper content .....	free
Unrefined black, blister, and converter copper in pigs or converter bars, copper content .....	free
Refined copper in ingots, plates or bars, copper content .....	free
Copper rolls, rods or sheets .....	1¼c lb.
Copper seamless tubes and tubing .....	3½c lb.
Copper plain wire .....	12½%
Copper brazed tubes .....	5½c lb.
Old and scrap copper, fit only for remanufacture; and scale and clippings, copper content .....	free

## BRASS

Brass rods, sheets, plates, bars, strips, muntz or yellow metal sheets, sheathing, bolts, piston rods, shafting and bronze rods, tubes and sheets .....	2c lb.
Brass tubes and tubing, seamless .....	2c lb.
Brass tubes, brazed, angles and channels .....	6c lb.
Brass and bronze wire .....	12½%

## LEAD

NOTE—Import duties on lead-bearing ores, flue dust, and mattes of all kinds, lead bullion or base bullion, lead in pigs and bars, lead dross, reclaimed lead and antimonial lead were suspended Feb. 12, 1952, and reimposed on June 26, 1952. Lead scrap duty was reimposed July 1, 1952.

Lead-bearing ores and mattes, n. s. p. f., lead content .....	¾c lb.
Bullion or base bullion, lead content .....	1 1/16c lb.
Pigs and bars, lead content .....	1 1/16c lb.
Reclaimed, scrap, dross, lead content .....	1 1/16c lb.
Babbitt metal and solder, lead content .....	1 1/16c lb.
Pipe, sheet, shot, glaziers' lead, and wire ...	5/16c lb.
Type metal and antimonial lead, lead content ..	1 1/16c lb.
White lead .....	1.05c lb.
Litharge .....	1¼c lb.
Red lead .....	15/16c lb.
Orange mineral .....	1c lb.

## ZINC

NOTE—Import duties on zinc-bearing ores, and on zinc in blocks, pigs and slabs were suspended Feb. 12, 1952, and reimposed on July 24, 1952. Tax on old zinc and dross and skimmings reimposed July 1, 1953.

Zinc-bearing ores, except pyrites containing not more than 3% zinc, zinc content .....	6/10c lb.
Zinc contained in zinc-bearing ores, n. e. s., not recoverable, zinc content .....	6/10c lb.
Zinc, old and worn out, fit only for remanufacture .....	¾c lb.
Dross and skimmings .....	¾c lb.
Zinc in blocks, pigs, or slabs .....	7/10c lb.
Zinc in sheets .....	1c lb.

Zinc sheets, plated with nickel or other base metal, or solutions .....	1¾c lb.
Zinc dust .....	7/10c lb.
Zinc die-casting alloys .....	12½%
Zinc oxide and leaded zinc oxides containing not more than 25% lead, dry .....	3/5c lb.
ground in or mixed with oil or water .....	1c lb.

## MISCELLANEOUS METALS AND ORES

Aluminum, metal and alloys, crude, except alloys elsewhere provided for .....	1½c lb.
Aluminum scrap .....	free
Aluminum plates, sheets, bars, rods, circles, squares, etc .....	3c lb.
Antimony ore, antimony content .....	free
Antimony metal and regulus .....	2c lb.
Antimony needle or liquidated .....	¾c lb.
Antimony oxide .....	1c lb.
Antimony sulphides .....	½c lb. & 12½%
Arsenic, metallic .....	3c lb.
Arsenious acid or white arsenic .....	free
Bauxite, crude .....	50c ton
Bauxite, refined .....	¾c lb.
Bismuth .....	1½%
Bismuth salts and compounds .....	35%
Beryllium metal and compounds .....	25%
Beryllium ore .....	free
Cadmium .....	3¾c lb.
Cadmium flue dust, cadmium content .....	free
Chrome ore or chromite .....	free
Cobalt ore and concentrates, cobalt content .....	free
Chrome or chromium metal .....	12½%
Cobalt metal .....	free
Magnesium, metallic .....	20c lb.
Magnesium scrap .....	free
Magnesium alloys, powder, sheets, wire ...	20c lb. & 10%
Manganese ores, containing over 10% manganese, manganese content .....	¾c lb., except Cuba, free
Molybdenum ore or concentrates, molybdenum content .....	35c lb.
Nickel ore, matte and oxide .....	free
Nickel and alloys, nickel chief value, n. s. p. f., in pigs, ingots, shot, cubes, grains, cathodes, or similar forms .....	1¼c lb.
Nickel, bars, rods, plates, sheets, castings, strips, wire or electrodes .....	12½%
Nickel tubes, tubing .....	6¾%
(if cold rolled, drawn or worked—2½% extra)	
Nickel scrap .....	free
Platinum, ores, platinum content, oz. troy .....	free
Platinum, grain, nuggets, sponge and scrap, oz. troy ..	free
Platinum in ingots, bars, sheets, or plates, not less than ¼ in. thick, oz. troy .....	free
Quicksilver or mercury .....	25c lb.
Selenium and salts .....	free
Tantalum .....	12½%
Tin ore, cassiterite, and black oxide of tin, tin content .....	free
Tin in bars, blocks, pigs, grain, granulated, and scrap, and alloys, chief value tin, n. s. p. f. ....	free
Tungsten ore or concentrates, tungsten content ...	50c lb.

METALS, SEPTEMBER, 1954

# U. S. COPPER FIRM AS STRIKES TIGHTEN SUPPLIES; LEAD, ZINC PRICES ADVANCE ON STOCKPILE BUYING

## Dual Quotations Eliminated for Brass and Bronze Ingots; Tin Fluctuates in Narrow Range; Quicksilver at New High

September 21, 1954

**P**RIce advances in lead and zinc and copper industry strikes at home and in Chile featured the metal markets during the month in review. Lead rose in three quarter-cent advances to 14.75 cents a pound at New York. Prime Western zinc jumped a half-cent to 11.50 cents at East St. Louis. Spot quicksilver soared to \$321 a flask on September 15, an all-time high.

At this writing, the strikes at copper mining properties in the United States are over but Kennecott Copper Corporation's refinery at Garfield, Utah, and American Smelting and Refining Company's smelter there are still strike bound. Kennecott has informed its employees that it will have to go a four-day work week if these strikes are not settled by Sept. 27. However current indications are that the struck plants will be back in operation before that date.

In Chile, the strike situation is confused. President Carlos Ibanez has declared a state of siege, or modified martial law, throughout most of the nation despite the fact that the copper walkouts reportedly have come to an end. Kennecott's Chilean properties had been on strike since August 18 while Anaconda's Potrerillos mine was idle since August 30. Anaconda's Chuquibambilla's mines also had been shut down.

### Copper Supplies Tight

As a result of the strikes in the industry, copper supplies grew tighter. While the large producers and custom smelters are adhering to 30 cents a pound for their copper, they have little for sale at this level, or at any price, for that matter. Consequently, consumers who are hard pressed for copper have had to go into the outside market and pay stiff premiums for the metal. Some sales are reported to have been made at better than 32 cents a pound.

Some of the large Eastern refineries have boosted their buying prices of scrap copper and brass by 0.50 cents a pound, paying 26.25 cents a pound for No. 2 heavy copper and wire. A 26.25 cents price for No. 2

heavy copper is equivalent to about 30.75 cents a pound, f. o. b. refinery, for refined metal since the refining charge is about 4.50 cents a pound. The indications are that the copper that will be refined from the higher-priced scrap will be exported. Abroad, higher than 31 cents has been paid for copper.

### Copper Industry Strikes

The strike at Kennecott Copper Corporation's four U. S. mines, which began on August 16 and lasted for nearly three weeks, was finally settled with the International Mine, Mill and Smelter Workers Union (Ind.) on the basis of a 7.7 cent an hour wage increase. Consolidated Coppermines Corporation, whose mine adjoins Kennecott's Nevada property, also resumed operations. These shutdowns are estimated to have resulted in the loss of about 25,000 tons of copper, which will be reflected in reduced refined production some two to three months from now.

The El Paso, Texas, refinery of Phelps Dodge Corporation resumed activity after the company reached an agreement with the Mine-Mill union on a new wage contract. A new wage pact also was reached with the union at the Phelps Dodge mines at Bisbee, Ajo and Morenci, in Arizona. These properties had not been closed down.

### Garfield Plants Idled

The big Garfield, Utah, smelter of the American Smelting & Refining Co. was idled September 13 as a result of a strike called by the CIO Steelworkers Union. On September 15, Kennecott's Garfield refinery was struck by the same union. The Garfield refinery has a capacity for refining about 20,000 tons of copper a month and has been producing 16,000 to 18,000 tons monthly.

### Primary Output Down

Domestic primary output of copper in August dropped to 52,414 tons as against 66,070 tons in July, the smallest monthly figure since August, 1949, when output was 52,319 tons. With August secondary production only 7,704 tons compared with 9,597 tons

in the previous month, crude August output was 60,118 tons, or 15,449 tons less than in July. Refined copper output in August was 103,901 tons against 107,095 tons in July. Refined copper deliveries dropped to 92,475 tons from 97,436 tons in July. Refined copper stocks in the hands of domestic producers totaled 58,387 tons at the end of August, 10,534 tons less than at the end of July.

### Brass Ingot Prices

A range in prices for brass and bronze ingots, established on August 11 when several large Midwestern ingot makers increased their quotations by 0.50c to 1.50c a pound, no longer prevailed. On September 7, Eastern ingot makers also advanced their quotations to bring them into line with the higher levels established on August 11. Eastern factors stated they moved up their prices because of the tight supply situation in scrap and the shortage of primary copper.

### Lead, Zinc Stockpile Buying

On August 30 the General Services Administration requested offers of domestically produced lead and zinc for the national stockpile. As in the past few months, the same GSA buying conditions prevailed; the metal must have been mined after April 1 and must be delivered by November 15. Tenders were submitted by September 1 and it was indicated that GSA took all the zinc accepted by domestic producers at 11.00c a pound for the Prime Western grade, East St. Louis, and all the lead producers offered at 14.25c a pound New York.

Previously, lead had advanced 0.25c a pound on August 25 to 14.25c New York, reflecting not only improvement in domestic demand for the metal but also the higher price lead was commanding abroad.

Indications were, however, that while GSA had taken all the lead and zinc that producers had offered on the Government request for tenders on September 1, the stockpile agency was seeking additional quantities of both metals. Zinc producers were willing to sell additional quantities at 11.25c a pound East St. Louis or at the monthly average price. These of-



ters were unacceptable to the Government, the GSA being committed to buy at the "market price," which was then 11.00c. Also, producers were unwilling to liquidate their holdings of lead at the 14.25c New York level (then the market price) because their stocks were accumulated at a much higher price.

On September 3, virtually all custom smelters and producers advanced their Prime Western zinc price 0.50c a pound to 11.50c East St. Louis. The lone custom smelter which did not follow the rise on that date finally did so on September 7. The rise reflected inquiry by the GSA for additional tonnages. On September 10, it was indicated the GSA did buy additional quantities of zinc, acquiring the metal at 11.50c a pound, and also at the October average.

#### GSA Broadens Operations Base

In buying at the October average, the GSA apparently has broadened its base of operations. Beginning with June the agency's policy was to limit its purchases, first at a fixed price and then at the market price. It has been made clear to the GSA by members of the industry, that the current price level is not a profitable one and that producers' stocks were accumulated at a much higher price than the one now prevailing. The agency's latest move in buying at the average price was regarded as a progressive as well as a realistic approach to the situation. Whether this will set a pre-

cedent for future purchases for the stockpile, remains to be seen.

On September 7, the price of lead moved up another 0.25c a pound to 14.50c New York. The rise did not come as any great surprise, in view not only of the good tonnage that GSA had bought for the domestic stockpile and the sharp advance in London quotations, but also because of the 0.50c advance in zinc. On September 15, the New York lead price rose another 0.25c a pound, to 14.75c, reflecting higher quotations on the London Metal Exchange.

At this writing, producers were well satisfied with the volume of business they were doing in lead at 14.75c. The higher price did not seem to deter consumers from placing good sized orders for shipment in September, and with most of the business placed at the spot quotation. Demand for zinc was fairly good, and if the die casters were to take proportionately as much zinc as the galvanizers have been taking, the zinc market would have to be termed quite active.

#### U. S. Tin Consumption

Total consumption of tin in this country was 9 per cent more in 1953 than in the previous year, according to the U. S. Bureau of Mines. Consumption (tin content of manufactured products) was 86,000 long tons last year (54,000 tons primary and 32,000 tons of secondary), compared with 78,000 tons in 1952 (45,000 tons

primary and 33,000 tons of secondary.)

Demand for tin in the New York market was on the light side, with spot Straits at 93.50c a pound on September 15, compared with the last quoted price in this space of 92.625c on August 19. For the August 19-September 15 period, the low of 92.625c was registered on the first day of the period, on August 20 and again on September 2. The high of 93.875c was registered on September 13.

#### Quicksilver Hits New High

Spot quicksilver on September 15 soared to a new high of \$321 per flask of 76 pounds, as against the last previously quoted level in this space of \$290 as of August 6. The increase was attributed to an extremely tight spot supply situation rather than any real expansion in demand. Suppliers were rationing supplies to their regular customers, and small lot sales were made at the new high range.

#### Secondary Aluminum

All primary producers maintained their price of 22.20c a pound for aluminum ingots. Better demand was noted for secondary aluminum ingots, with prices for smelters' alloys firmer. The exception to the firmness were the steel dextrizing items, with Grade 4 declining 0.50c a pound, to 17.50 to 18.50c on September 7. Smelters continued to pay strong prices for aluminum scrap.

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# Daily Metal Quotations in August, 1954

The following quotations are taken from the Daily Metal Reporter  
(In Cents Per Pound)

	Copper				Tin Straits New York		Lead		Zinc		Alum- inum		Anti- mony	Silver					
	Producers' Price	Del. Comm.	Custom Smelters' or Outside Price	Electro f. o. b. Refinery	Lake Del.	Average Electrolytic Export Price f. a. s. N. Y.	Spot	Prompt	New York	Outside St. Louis	Prime West f. o. b. St. Louis	Prime West Del. N. Y.			Brass Spec. f. o. b. St. Louis	High Grade Delivered	Spec. High Grade Delivered	Virgin 99%	Domestic Spot 99.5% f. o. b. Laredo
August																			
1	30.00	30.00	30.00	29.70	30.00	30.00	95.50	95.50	14.00	13.80	11.00	11.50	11.25	12.35	12.50	21.50	28.50	85.25	85.25
2	30.00	30.00	30.00	29.70	30.00	30.00	95.00	95.00	14.00	13.80	11.00	11.50	11.25	12.35	12.50	21.50	28.50	85.25	85.25
3	30.00	30.00	30.00	29.70	30.00	30.00	95.50	95.50	14.00	13.80	11.00	11.50	11.25	12.35	12.50	21.50	28.50	85.25	85.25
4	30.00	30.00	30.00	29.70	30.00	30.00	94.75	94.75	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
5	30.00	30.00	30.00	29.70	30.00	30.00	94.25	94.25	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
6	30.00	30.00	30.00	29.70	30.00	30.00	93.00	93.00	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
7	30.00	30.00	30.00	29.70	30.00	30.00	93.00	93.00	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
8	30.00	30.00	30.00	29.70	30.00	30.00	93.00	93.00	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
9	30.00	30.00	30.00	29.70	30.00	30.00	93.375	93.375	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
10	30.00	30.00	30.00	29.70	30.00	30.00	92.875	92.875	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
11	30.00	30.00	30.00	29.70	30.00	30.00	92.875	92.875	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
12	30.00	30.00	30.00	29.70	30.00	30.00	92.625	92.625	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
13	30.00	30.00	30.00	29.70	30.00	30.00	92.625	92.625	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
14	30.00	30.00	30.00	29.70	30.00	30.00	93.00	93.00	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
15	30.00	30.00	30.00	29.70	30.00	30.00	93.00	93.00	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
16	30.00	30.00	30.00	29.70	30.00	30.00	92.625	92.625	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
17	30.00	30.00	30.00	29.70	30.00	30.00	92.625	92.625	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
18	30.00	30.00	30.00	29.70	30.00	30.00	92.625	92.625	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
19	30.00	30.00	30.00	29.70	30.00	30.00	92.625	92.625	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
20	30.00	30.00	30.00	29.70	30.00	30.00	92.625	92.625	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
21	30.00	30.00	30.00	29.70	30.00	30.00	93.25	93.25	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
22	30.00	30.00	30.00	29.70	30.00	30.00	93.25	93.25	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
23	30.00	30.00	30.00	29.70	30.00	30.00	93.25	93.25	14.00	13.80	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
24	30.00	30.00	30.00	29.70	30.00	30.00	93.25	93.25	14.25	14.05	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
25	30.00	30.00	30.00	29.70	30.00	30.00	93.25	93.25	14.25	14.05	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
26	30.00	30.00	30.00	29.70	30.00	30.00	93.125	93.125	14.25	14.05	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
27	30.00	30.00	30.00	29.70	30.00	30.00	92.75	92.75	14.25	14.05	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
28	30.00	30.00	30.00	29.70	30.00	30.00	92.75	92.75	14.25	14.05	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
29	30.00	30.00	30.00	29.70	30.00	30.00	92.50	92.50	14.25	14.05	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
30	30.00	30.00	30.00	29.70	30.00	30.00	92.50	92.50	14.25	14.05	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
31	30.00	30.00	30.00	29.70	30.00	30.00	92.50	92.50	14.25	14.05	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
AV.	30.00	30.00	30.00	29.70	30.00	30.00	93.381	93.381	14.06	13.86	11.00	11.50	11.25	12.35	12.50	22.12	28.50	85.25	85.25
HL	30.00	30.00	30.00	29.70	30.00	30.00	95.50	95.50	14.25	14.05	11.00	11.50	11.25	12.35	12.50	22.20	28.50	85.25	85.25
LO	30.00	30.00	30.00	29.70	30.00	30.00	92.50	92.50	14.00	13.80	11.00	11.50	11.25	12.35	12.50	21.50	28.50	85.25	85.25

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## British Metal Review

(Continued from page 13)

to operate on such a basis as they are not in much need of agricultural products. Possibly Belgium and one or two other countries similarly situated might find such transactions helpful.

Meanwhile, the already quite good demand for lead which had characterized the European market for some time has become somewhat intensified and prices have risen to slightly above the £100 level for early delivery. Whatever may be the feeling in the U. S. about the current level of lead prices, it is generally accepted over here that £100 a ton is quite satisfactory to producers generally.

### Same Factors Influence Zinc

Many of the same factors which have influenced the lead market (and which are referred to above) have been operative also in zinc during the past month. At one time it looked as if the effect of President Eisenhower's stockpiling announcement on the London market might be more pronounced in the case of zinc than in lead owing to the fact that zinc had been the more depressed of the two markets.

At the time of writing, however, the extent of the rise in the prices of the two metals during the past month is much the same. It is interesting to note that consumer demand

### U. K. LEAD STATISTICS

According to the British Bureau of Non-Ferrous Metal Statistics, U. K. stocks at the end of June totalled 30,437 tons compared with 29,793 at the end of May. Of the June figure 20,911 tons were imported virgin and 9,526 tons English refined. Consumers held 12,935 tons of the imported virgin and 5,958 tons English refined, and stock in L.M.E. approved warehouses were 1,881 tons of imported virgin. Other stocks comprised 6,095 tons imported virgin and 3,568 tons English refined. Production during June amounted to 7,780 tons of English refined (6,477 tons). Consumption at 28,574 tons was slightly lower than the 28,637 tons in May.

The following figures show consumption of lead by main trades, in long tons:

	June 1954	Jan.-June 1953	1954
Cable making	7,221	50,356	41,189
Battery (excluding ovides)	2,811	13,476	15,841
Oxides and compounds:			
Battery	2,396	11,116	14,348
Other uses	3,420	14,794	19,773
White lead	1,026	5,146	5,853
Sheet and Pipe	6,891	33,783	38,380
Shot	407	2,234	2,518
Foil and Collapsible			
Tubes	327	1,489	2,031
Solder	1,049	4,959	6,308
All other alloys	1,172	5,499	7,223
Misc. Uses	1,854	7,468	10,632
Total Consumption	28,574	150,319	164,096

of which:

Imported Virgin	18,416	73,628	96,652
English refined	3,708	34,730	30,129
Scrap, including remelted	6,450	41,961	37,315

METALS, SEPTEMBER, 1954

### U. K. ZINC STATISTICS

The British Bureau of Non-Ferrous Metal Statistics reports U. K. stocks of zinc at the end of June as 40,389 tons compared with 38,409 tons at the end of May. Of the June figure consumers held 20,657 tons and stocks in L. M. E. approved warehouses accounted for 1,879 tons. Stocks of zinc in concentrates rose to 29,280 tons compared with 33,801 tons at the end of May. Production during the month amounted to 8,362 tons of virgin metal compared with 6,476 tons the previous month. Consumption was higher at 29,665 tons compared with 27,551 tons in May.

The following figures show U. K. consumption by main trades, in long tons:

	June 1954	Jan.-June 1953	1954
Brass	9,910	40,180	54,317
Galvanizing	9,823	42,772	54,147
of which:			
General	2,913	15,994	16,758
Sheet	3,349	12,418	18,155
Wire	1,854	7,483	10,628
Tube	1,707	6,877	8,606
Rolled zinc	2,008	10,181	11,051
Zinc Oxide	2,708	11,076	15,926
Zinc alloy diecasting	3,294	11,302	17,430
Zinc dust	913	4,326	4,356
Misc. Uses	1,009	5,765	5,975
Total all Trades	29,665	125,602	163,202
of which:			
Virgin metal	21,512	87,823	119,023
Secondary	8,153	37,779	44,179

for zinc having been stimulated by the American proposals, a moderate contango has now been turned into a small backwardation.

### Russian Metal Offered

Recently a certain amount of Canadian debased electro has been imported into this country owing to the lack of outlets for electro zinc in the U. S. A., but perhaps of greater interest is the fact that Russian high grade zinc has been offered on the U. K. market and some modest parcels have been sold. This was disposed of at a lower premium than the main suppliers of high grade to the U. K. had been quoting and the premium over the London Metal Exchange price for high grade metal has now been generally reduced from £6 to £4 a ton.

Consumers of special high grade are now hoping that a similar reduction in the premium for this grade will be made but so far no definite steps have been taken in this direction.

## Washington Report

(Continued from page 5)

reach 301,485,000 pounds during the third quarter of 1954. A minimum of 63,345,000 pounds of aluminum is required to be made available to non-integrated users (who fabricate but do not produce the metal). During the second quarter of 1954, 80,000,000 pounds were made available to the non-integrateds. Total production of aluminum during the second quarter of this year was 303,407,000 pounds; during the first quarter it was 260,887,000 pounds. GSA said there were no instances in the last nine months in which non-integrated users said they were unable to obtain the metal.

## Base Metal Supplies Must Be Assured, Prices Competitive

(Continued from page 9)

short term this may be a solution to the industry's economic problems. But unless the government is to go on buying for stockpile forever, the industry must have more consumer demand to remain in a healthy economic status.

8. As the government stockpiles of base metals grow, the incentive to design away from base metals for military purposes should lessen. Large stockpiles should give the services a feeling of security as to supplies of these metals and they should therefore plan on using the material most suited to a particular purpose rather than simply the material most likely to be available. This in turn, may mean that perhaps if there is another Korea-type emergency, the government will be less prone to finance expansion of aluminum capacity simply because it can be done more easily and more quickly than an expansion of copper or lead or zinc capacity. The base metals can have no quarrel with the growth of the aluminum industry, if it is based on normal economic and technical development. But to have a competitive material financed on an excessive scale by government funds for war-time purposes can create serious peace-time problems.

### Over-All Business Outlook Good

To summarize, it would be nice to be able to say to you that the outlook for copper, lead and zinc is rosy. I do believe the over-all business outlook for the country as a whole is good. But the three base metals have not been sharing in the increase in general business activity to the extent they should. If the situation is to be corrected, if they are to enjoy their normal share of expanded trade, the producers of these metals must be prepared to offer their wares at an economic price in relation to competitive materials and the fabricators and manufacturers who convert the metals into finished products must have reasonable assurance of future supplies comparable with the assurance they now feel about, for instance, aluminum.

Such assurance is not increased by over-emphasis on the mining industry's economic problems nor by excessive reliance on government assistance—whether it be tariffs, stockpiling, subsidy schemes, import quotas, or allocations. Instead of scaring consumers by repeated newspaper publicity on these problems, the base-metal industry can win friends and influence demand by calling attention to the proven merit of its products, by stressing the development of its technology (which in recent years has added millions of tons of metal to known reserves through new and improved methods of discovery and production), and by concentrating on finding ways to make use of copper, lead, and zinc both easier and cheaper. If demand is increased, what now seems to be excess capacity will be readily absorbed and the industry will prosper.



# Copper Statistics Reported by Copper Institute

## Combined Totals in U. S. A. and Outside U. S. A.

(In tons of 2,000 pounds)

Crude Production			Refined	Deliveries to	Refined Stock	Stock Increases or Decreases		
	Primary	Secondary	Production	Customers	End of Period	Blister	Refined	Total
1951 Total	2,343,422	62,270	2,424,802	2,381,237	223,731	-19,110	+34,772	+15,662
1952 Total	2,362,887	55,858	2,385,538	2,451,093				
1953								
Aug.	202,926	6,573	199,314	150,893	288,045	+ 7,960	+45,986	+53,946
Sept.	195,086	9,231	185,603	153,782	309,243	+18,714	+19,727	+38,441
Oct.	197,840	11,083	218,770	180,777	342,984	- 9,847	+33,741	+23,894
Nov.	180,169	6,541	198,239	180,917	354,370	-11,529	+11,386	- 143
Dec.	197,287	10,930	221,823	199,202	369,723	-11,945	+15,353	+ 3,408
1953 Total	2,397,540	123,210	2,514,969	2,275,060	369,723	+ 7,836	+180,762	+188,598
1954								
Jan.	191,564	7,835	196,653	169,386	388,631	+ 2,746	+20,389	+23,135
Feb.	177,075	7,096	174,360	163,474	393,792	+ 9,811	+ 5,161	+14,972
Mar.	196,870	8,254	211,370	189,030	405,563	- 6,241	+11,771	+ 5,525
April	195,823	6,662	200,364	203,772	397,593	+ 2,121	- 7,970	- 5,849
May	189,670	6,922	203,967	226,202	337,345	+ 7,375	-60,248	-67,623
June	198,616	11,482	200,736	236,575	249,832	+ 9,362	-87,513	-78,151
July	196,588	9,555	212,922	202,717	239,479	- 6,379	-10,353	-16,732
Aug.	175,945	8,505	204,938	196,480	230,713	-20,488	- 8,766	-29,254
In U. S. A.								
1951 Total	964,589	56,910	1,199,784	1,367,787	71,528	.....	+22,488	.....
1952 Total	961,886	46,003	1,189,112	1,445,765				
1953								
Aug.	79,376	5,577	108,974	106,985	78,825	.....	+ 1,725	.....
Sept.	78,952	7,796	114,760	104,886	72,907	.....	- 5,918	.....
Oct.	83,433	9,002	126,138	110,519	84,303	.....	+11,396	.....
Nov.	79,934	5,790	119,230	100,908	93,274	.....	+ 8,971	.....
Dec.	78,500	10,232	123,296	112,244	89,193	.....	- 4,081	.....
1953 Total	957,434	109,972	1,395,003	1,443,719	89,193	.....	+30,335	.....
1954								
Jan.	76,912	7,304	111,555	77,091	108,121	.....	+20,409	.....
Feb.	68,034	6,394	103,496	87,795	118,417	.....	+10,296	.....
March	73,429	7,671	117,546	95,795	125,759	.....	+ 7,342	.....
April	70,977	6,486	112,617	104,579	124,523	.....	- 1,236	.....
May	71,571	6,660	108,403	111,005	82,111	.....	-42,412	.....
June	74,113	11,216	112,121	106,252	69,181	.....	-12,930	.....
July	66,070	9,597	107,095	97,436	68,921	.....	- 260	.....
Aug.	52,414	7,704	103,901	92,475	58,387	.....	-10,534	.....
Outside U. S. A.								
1951 Total	1,378,883	5,360	1,225,018	1,013,450	152,203	.....	+12,284	.....
1952 Total	1,401,001	9,582	1,196,426	1,005,329				
1953								
Aug.	123,550	996	92,565	46,133	209,220	.....	+42,790	.....
Sept.	116,134	1,435	70,843	48,896	236,336	.....	+27,116	.....
Oct.	114,407	2,081	92,632	70,258	258,681	.....	+22,345	.....
Nov.	100,235	751	79,009	80,009	280,530	.....	+19,434	.....
Dec.	120,448	698	98,527	86,958	261,096	.....	+ 2,415	.....
1953 Total	1,441,874	13,238	1,119,966	831,341	280,530	.....	+150,427	.....
1954								
Jan.	114,652	531	85,100	91,941	280,510	.....	- 20	.....
Feb.	109,041	702	70,864	74,457	275,375	.....	- 5,135	.....
Mar.	123,441	583	93,824	93,235	279,804	.....	+ 4,429	.....
April	124,846	176	87,747	99,193	273,070	.....	- 6,734	.....
May	118,099	262	95,564	115,197	255,234	.....	-17,836	.....
June	124,503	266	88,615	130,323	180,651	.....	-74,583	.....
July	130,518	358	105,827	105,781	170,558	.....	-10,093	.....
Aug.	123,531	801	101,037	104,005	172,326	.....	+ 1,768	.....

\*Excluding Russia, Yugoslavia, Norway, Sweden, Japan, Australia.

### Electrolytic Copper

Price, Del. Conn. Valley  
Monthly Average Prices  
(Cents Per Pound)

	1951	1952	1953	1954
Jan.	24.50	24.50	24.50	29.88
Feb.	24.50	24.50	25.46	29.88
Mar.	24.50	24.50	31.49	29.93
Apr.	24.50	24.50	30.59	29.98
May	25.31	27.829	29.72	30.00
June	24.50	24.50	29.94	30.00
July	24.50	24.50	29.92	30.00
Aug.	24.50	24.50	29.69	30.00
Sept.	24.50	24.50	29.75	.....
Oct.	24.50	24.50	29.80	.....
Nov.	24.50	24.50	29.88	.....
Dec.	24.50	24.50	29.88	.....
Aver.	24.50	24.50	29.15	.....

### Lake Copper

Producers' Price, Delivered  
Monthly Average Prices  
(Cents Per Pound)

	1951	1952	1953	1954
Jan.	24.625	24.625	24.625	30.00
Feb.	24.625	24.625	24.625	30.00
Mar.	24.625	24.625	32.00	30.00
Apr.	24.625	24.625	32.23	30.00
May	24.625	24.625	Nom	30.00
June	24.625	24.625	30.125	30.00
July	24.625	24.625	30.125	30.00
Aug.	24.625	24.625	30.125	30.00
Sept.	24.625	24.625	30.125	.....
Oct.	24.625	24.625	30.125	.....
Nov.	24.625	24.625	30.125	.....
Dec.	24.625	24.625	30.038	.....
Aver.	24.625	24.625	29.47	.....

### Export Copper

Electrolytic f.a.s. New York  
Monthly Average Prices  
(Cents Per Pound)

	1951	1952	1953	1954
Jan.	24.50	27.50	34.825	28.635
Feb.	24.50	27.50	34.825	28.59
Mar.	24.50	27.50	35.131	29.544
Apr.	24.50	27.50	35.89	29.93
May	24.50	24.50	29.89	30.00
June	27.50	34.415	29.75	30.00
July	27.50	34.537	29.692	30.00
Aug.	27.50	34.825	29.075	30.00
Sept.	27.50	34.825	29.00	.....
Oct.	27.50	34.825	29.053	.....
Nov.	27.50	34.825	28.875	.....
Dec.	27.50	34.825	28.774	.....
Aver.	26.318	31.742	31.218	.....



## Fabricators' Copper Statistics

(In Tons of 2,000 Pounds)

	Fabricators' Stocks of Refined Cop.	Unfilled Purchases of Refined by Fab. from Producers	Fabricators' Working Stocks	Unfilled Sales by Fabricators to Customers	Actual Copper Consumed by Fabricators	Excess Fabricators' Stocks Over Orders Bkd.
1948						
Total					1,394,307	
1949						
Total					1,053,225	
1950						
Total					1,438,327	
1951						
Dec.	280,402	32,147	295,385	303,050	106,536	-285,886
Total					1,392,111	
1952						
Feb.	258,279	42,911	291,475	292,069	115,150	-282,354
Mar.	254,868	34,085	292,932	309,855	116,887	-313,834
Apr.	256,798	39,834	288,673	318,193	106,109	-310,239
May	240,962	41,135	289,822	304,639	109,890	-312,364
June	245,730	39,513	286,576	299,124	107,709	-300,457
July	281,064	53,716	293,220	303,765	82,419	-262,205
Aug.	298,849	50,399	287,512	294,280	119,280	-232,544
Sept.	308,036	47,188	295,275	285,465	122,934	-225,516
Oct.	311,676	45,970	290,634	285,114	125,325	-218,102
Nov.	315,608	33,710	292,028	280,716	130,031	-223,426
Dec.	333,455	32,652	292,157	275,312	117,303	-201,362
Total					1,389,451	
1953						
Jan.	321,212	43,195	294,467	275,736	134,203	-205,796
Feb.	312,177	52,990	290,367	296,760	123,850	-221,960
Mar.	319,356	47,685	292,447	291,979	122,980	-217,385
Apr.	342,771	53,501	295,096	298,532	116,319	-197,356
May	364,197	49,952	293,794	285,425	126,972	-165,070
June	363,020	40,759	297,387	268,099	132,615	-161,707
July	375,629	39,936	302,113	259,641	91,826	-146,189
Aug.	366,244	42,490	305,204	235,893	113,250	-132,363
Sept.	358,081	38,593	307,612	206,476	111,805	-117,414
Oct.	352,091	31,035	305,431	187,438	116,259	-109,743
Nov.	350,804	34,380	305,877	165,047	102,258	-85,740
Dec.	380,881	25,022	309,664	170,917	83,652	-74,678
Total					1,375,869	
1954						
Jan.	355,632	26,423	307,014	142,588	100,805	-67,547
Feb.	349,661	26,227	305,670	122,999	94,975	-52,781
Mar.	341,693	28,836	304,065	123,887	103,796	-57,423
Apr.	341,616	30,677	302,391	124,559	104,943	-54,657
May	349,796	33,210	305,504	123,039	102,810	-45,537
June	351,518	43,723	304,833	122,218	104,531	-31,810
July	370,287	41,104	307,352	130,576	80,751	-36,537

## Scrap Copper Receipts by Custom Smelters and Refineries in United States\*

(In Short Tons)

	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Jan.	3,247	3,077	7,080	10,172	17,084	15,763	6,640	4,528	6,486	9,859
Feb.	2,877	1,576	5,394	11,890	20,238	12,500	5,153	3,633	10,337	8,490
Mar.	4,398	2,116	9,187	11,954	20,678	13,638	7,912	5,243	19,991	9,738
Apr.	5,249	2,750	13,065	15,125	15,968	12,304	8,553	6,214	16,584	9,004
May	4,427	2,465	14,264	16,357	14,237	8,749	8,458	8,733	10,857	8,647
June	4,733	2,230	9,883	11,176	8,809	20,523	8,628	4,436	10,945	13,309
July	5,342	2,581	8,578	8,370	7,782	10,040	6,642	5,183	9,063	10,260
Aug.	3,353	2,117	8,572	17,981	8,246	10,452	6,113	5,093	7,137	10,190
Sept.	4,504	4,832	10,611	16,001	10,980	4,903	3,561	4,667	9,042	....
Oct.	4,615	2,932	8,532	10,854	6,401	9,459	3,336	4,602	10,665	....
Nov.	4,080	3,079	8,070	7,625	15,347	9,237	3,179	4,724	7,815	....
Dec.	3,411	4,081	9,154	11,826	10,533	7,178	4,538	6,208	11,476	....
Total	51,866	33,826	112,386	147,931	156,303	142,067	71,812	62,470	129,798	....

\*As compiled by Copper Institute.

## Brass and Bronze Ingot Monthly Shipments

(Net Tons)

The following figures showing the combined shipments of ingot brass and bronze are compiled by the Ingot Brass and Bronze Industry and represent in excess of 95 per cent of the deliveries of the entire industry.

	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Jan.	43,569	41,021	29,196	27,841	26,998	19,456	18,874	28,416	28,315	24,423	20,661
Feb.	43,340	39,297	24,580	24,686	22,487	15,026	18,487	27,168	24,211	25,429	19,920
Mar.	45,068	41,988	27,176	27,477	24,282	14,550	22,494	31,997	23,890	28,256	23,653
Apr.	43,151	40,118	30,228	24,577	25,177	10,695	22,118	30,472	22,547	25,044	24,746
May	45,418	37,262	27,333	19,525	22,716	11,114	23,643	32,267	21,740	21,660	22,269
June	40,677	32,613	31,349	16,929	24,401	9,696	25,093	33,817	21,274	26,813	22,348
July	40,532	27,995	26,677	16,728	20,456	10,220	21,609	32,016	18,947	19,321	17,074
Aug.	40,957	25,372	27,896	18,589	24,098	14,194	26,689	25,285	21,807	20,156	21,684
Sept.	38,333	20,165	27,390	19,025	28,641	16,208	28,811	22,286	22,770	21,463	....
Oct.	41,009	23,527	31,461	22,806	21,559	18,026	32,240	23,124	25,811	22,280	....
Nov.	38,845	22,966	29,232	21,666	21,731	18,488	31,748	23,544	23,441	21,860	....
Dec.	35,618	20,488	27,206	23,862	20,954	17,960	28,757	20,987	22,983	20,541	....
Total	496,412	372,812	339,724	263,711	279,500	175,643	303,563	332,878	277,736	271,251	....
Aver.	41,368	31,068	28,310	21,976	23,292	14,637	25,297	27,615	23,145	22,604	....

METALS, SEPTEMBER, 1954

## Mine Production of Copper in United States

(U. S. Bureau of Mines)

	Eastern	(In short tons) Missouri	Western	Total
1949				
Ttl.	32,955	3,670	716,121	752,750
1950				
Ttl.	40,105	2,982	866,250	885,942
1951				
Ttl.	41,119	2,422	884,788	928,330
1952				
Ttl.	36,758	1,726	885,985	924,469
1953				
June	3,128	173	70,334	73,635
July	3,440	183	72,869	76,492
Aug.	3,049	146	72,386	75,581
Sept.	3,029	199	72,214	75,442
Oct.	3,604	219	76,146	80,005
Nov.	3,043	180	71,942	75,165
Dec.	3,482	170	73,367	77,019
Ttl.	38,900	2,237	885,174	926,448
1954				
Jan.	3,077	147	71,473	74,697
Feb.	2,949	183	62,167	65,299
Mar.	3,560	148	67,581	71,289
Apr.	3,047	153	65,183	68,383
May	3,136	141	68,147	71,423
June	3,228	144	69,612	72,984
July	2,976	129	63,290	66,345

## Average Custom Smelters' Scrap Buying Prices

(Cents per pound del. refinery for 60,000 lbs. of each grade)

	No. 1 Copper Scrap	No. 2 Copper Scrap	Light Copper Scrap	Refinery Brass*
1953				
June	23.942	22.442	20.942	20.077
July	23.56	22.31	21.13	20.38
Aug.	22.08	20.58	19.08	17.06
Sept.	23.50	22.00	20.50	19.00
Oct.	23.875	22.192	20.692	19.00
Nov.	25.00	23.00	21.50	19.50
Dec.	24.46	22.73	21.23	19.50
Av.	23.955	20.405	20.855	20.036
1954				
Jan.	23.48	21.98	20.48	19.22
Feb.	24.00	22.50	21.00	20.00
Mar.	25.84	23.97	22.10	21.09
Apr.	26.42	24.92	23.42	21.77
May	27.04	25.54	24.04	22.58
June	27.125	25.625	24.125	22.875
July	27.09	25.59	24.09	22.93
Aug.	27.12	25.62	24.12	23.74

\*Of dry content for material having a dry copper content in excess of 60%.

## Brass Ingot Makers' Scrap Copper Buying Prices

(Average Prices)

(Cents per pound for carload lots del. consumers' works)

	No. 1 Copper Scrap	No. 2 Copper Scrap	No. 1 Composition	Heavy Yellow Brass
1953				
June	23.942	22.442	18.14	13.97
July	23.67	22.29	18.28	14.02
Aug.	21.35	20.51	17.86	12.57
Sept.	23.00	21.50	17.25	13.25
Oct.	24.096	22.692	17.481	13.163
Nov.	25.00	23.50	18.25	13.75
Dec.	24.77	22.15	18.17	13.67
Av.	23.524	21.934	18.862	14.127
1954				
Jan.	23.68	22.02	18.08	13.61
Feb.	24.50	23.00	17.75	13.50
Mar.	25.53	24.03	18.49	14.16
Apr.	26.39	24.89	20.02	15.35
May	27.03	25.53	21.50	16.50
June	27.01	25.51	21.50	16.50
July	26.90	25.38	21.40	16.69
Aug.	26.81	25.25	21.64	17.15

# United States Lead Statistics of Primary Refineries

(American Bureau of Metal Statistics)  
(In tons of 2,000 lbs.)

	Stock At Beginning	Production Primary & Secondary	Total Supply	Stock At End	Domestic Shipments
1948 .....	21,328	511,356	532,684	38,644	490,630
1949 .....	38,644	542,676	581,320	70,424	355,905
1950 .....	70,424	571,763	642,187	35,619	499,637
1951 .....	35,619	486,874	522,493	25,339	496,184
1952 .....	.....	532,778	558,117	.....	492,094
1953 .....	.....	.....	.....	.....	.....
February .....	52,760	45,423	98,183	58,949	36,811
March .....	58,949	47,993	106,942	62,371	42,242
April .....	62,371	46,729	109,100	69,608	39,487
May .....	69,608	43,187	112,795	63,879	48,914
June .....	63,879	36,880	100,759	56,569	44,140
July .....	56,569	40,210	96,779	61,017	35,652
August .....	61,017	38,022	99,039	58,103	40,836
September .....	58,103	42,154	100,257	58,490	41,598
October .....	58,490	44,741	103,231	58,236	44,987
November .....	58,236	52,562	110,798	67,494	43,234
December .....	67,494	48,687	116,181	81,152	35,007
Total .....	.....	533,883	577,443	.....	488,437
1954 .....	.....	.....	.....	.....	.....
January .....	81,152	48,518	129,670	92,496	37,108
February .....	92,496	42,046	134,542	97,981	36,551
March .....	97,981	50,808	148,789	100,927	47,837
April .....	100,927	46,730	147,657	100,441	47,161
May .....	100,441	49,139	149,580	109,302	40,183
June .....	109,302	42,317	151,619	104,626	46,987
July .....	104,626	35,716	140,342	93,030	37,195

In instances where the figures are not in balance it is due to shipments to other than domestic consumers.

## Industrial Classification of Domestic Lead Shipments

	(American Bureau of Metal Statistics)				(In tons of 2,000 lbs.)			
	Cable	Amm.	Foil	Batt'y	Brass Making	Sun-dries	Job-bers	Unclassi-fied
1948 .....	114,253	42,080	2,258	97,637	4,921	41,524	8,076	215,150
1949 .....	56,273	12,443	1,139	72,475	3,190	37,549	4,117	168,719
1950 .....	66,646	28,854	3,304	93,297	6,374	60,118	10,450	230,594
1951 .....	70,149	32,099	2,063	75,337	5,583	48,248	3,550	259,155
Mar. ....	7,055	1,675	187	3,907	757	3,616	441	21,523
Apr. ....	7,132	2,054	25	5,752	406	3,543	250	18,750
May ....	6,904	1,350	50	4,875	346	2,703	622	12,694
June ....	5,981	3,174	60	6,492	235	3,750	668	19,143
July ....	4,654	3,677	175	8,339	450	6,071	663	25,676
Aug. ....	6,330	2,401	100	7,773	276	4,540	685	19,164
Sept. ....	7,899	3,224	80	9,929	226	4,282	458	19,720
Oct. ....	7,548	2,475	60	7,221	480	3,668	318	19,200
Nov. ....	5,714	2,434	150	5,855	595	7,927	514	25,072
Dec. ....	5,536	2,594	110	5,840	385	3,319	253	21,333
Total .....	74,616	30,809	1,374	77,238	5,160	50,943	5,671	246,283
1953 .....	.....	.....	.....	.....	.....	.....	.....	.....
Jan. ....	5,183	1,554	186	5,567	352	3,763	204	18,720
Feb. ....	6,248	4,509	61	6,098	438	3,267	417	15,773
Mar. ....	6,175	2,796	323	7,011	415	5,641	509	19,372
Apr. ....	5,833	3,103	102	8,369	295	3,711	453	17,621
May ....	6,829	3,450	370	8,480	752	5,118	605	23,310
June ....	6,420	3,315	290	7,018	528	5,892	196	20,481
July ....	5,123	3,161	35	6,304	205	5,047	168	15,609
Aug. ....	5,226	2,335	120	9,435	745	5,382	268	17,325
Sept. ....	6,494	2,162	105	7,274	1,088	5,261	199	19,015
Oct. ....	9,612	2,782	160	6,346	307	4,628	1,987	19,165
Nov. ....	6,920	3,352	312	4,452	385	4,876	982	21,955
Dec. ....	6,220	1,896	72	3,985	206	3,350	402	18,876
Total .....	76,283	34,415	2,136	80,339	5,716	55,936	6,390	227,222
1954 .....	.....	.....	.....	.....	.....	.....	.....	.....
Jan. ....	6,273	2,955	.....	5,077	964	5,051	628	16,160
Feb. ....	6,040	2,170	.....	5,890	798	3,682	254	17,717
Mar. ....	7,620	2,405	252	6,663	149	6,818	492	23,438
Apr. ....	6,267	2,550	361	6,341	308	5,194	342	25,798
May ....	6,030	2,310	276	5,635	250	4,621	1,020	20,041
June ....	6,116	3,700	122	5,711	406	6,525	1,114	23,293
July ....	4,000	1,500	...	6,690	415	4,121	861	19,608

## Lead Prices at New York

	(Common Grade)			
	Monthly Average Prices			
	(Cents per pound)			
	1951	1952	1953	1954
Jan. ....	17.00	19.00	14.192	13.26
Feb. ....	17.00	19.00	13.50	12.82
Mar. ....	17.00	19.00	13.404	12.94
Apr. ....	17.00	18.92	12.64	13.91
May ....	17.00	15.731	12.75	14.00
June ....	17.00	15.26	13.413	14.11
July ....	17.00	16.00	13.683	14.00
Aug. ....	17.00	16.00	14.00	14.06
Sept. ....	17.00	16.00	13.74	....
Oct. ....	18.926	14.426	13.50	....
Nov. ....	19.00	14.18	13.50	....
Dec. ....	19.00	14.125	13.50	....
Av. ....	17.494	16.47	13.485	....

## Lead Sheet Prices

	(To Jobbers, Full Sheets)			
	Monthly Average Prices			
	(Cents per pound)			
	1951	1952	1953	1954
Jan. ....	22.00	24.00	19.192	18.26
Feb. ....	22.00	24.00	18.50	17.82
Mar. ....	22.00	24.00	18.404	17.94
Apr. ....	22.00	23.92	17.64	18.91
May ....	22.00	20.81	17.75	19.00
June ....	22.00	20.65	19.413	19.11
July ....	22.00	21.00	18.683	19.00
Aug. ....	22.00	21.00	19.00	19.06
Sept. ....	22.00	21.00	18.74	....
Oct. ....	22.44	19.48	18.50	....
Nov. ....	24.00	19.18	18.50	....
Dec. ....	24.00	19.125	18.50	....

## Battery Shipments

The following table shows replacement battery shipments in the United States as compiled by the Business Information Division of Dun & Bradstreet, Inc., for the Association of American Battery Manufacturers.

	(In thousands of units)			
	1951	1952	1953	1954
Jan. ..	1,979	1,639	1,571	1,788
Feb. ..	1,469	963	1,162	1,422
Mar. ..	1,176	769	1,202	1,194
Apr. ..	1,892	850	1,245	1,150
May ..	1,480	1,137	1,455	1,396
June ..	1,443	1,535	2,004	1,834
July ..	1,705	2,526	2,528	2,287
Aug. ..	2,239	2,905	2,707	....
Sept. ..	2,172	2,874	2,852	....
Oct. ..	2,640	3,112	2,825	....
Nov. ..	2,232	2,168	2,173	....
Dec. ..	1,792	1,975	1,890	....
Total ..	22,219	22,453	23,614	....

METALS, SEPTEMBER, 1954

## Lead Stocks at Primary U. S. Smelters and Refiners

(American Bureau of Metal Statistics)

(In tons of 2,000 lbs.)

	In ore and matte and in process at smelters	At smelters & refineries	In transit to refineries	In process at refineries	Refined pig lead	Anti- monial lead	Total Stocks
1949							
Jan. 1	76,373	9,697	4,101	17,939	29,050	9,594	146,754
1950							
Jan. 1	95,481	16,364	3,696	15,651	61,329	9,095	201,526
1951							
Jan. 1	69,757	11,993	4,959	15,341	28,894	6,725	137,669
1952							
Jan. 1	67,817	11,315	3,909	15,700	18,518	6,821	124,080
1953							
Jan. 1	65,771	17,583	3,105	19,759	31,405	12,155	149,778
Feb. 1	62,565	18,181	1,757	19,090	41,188	11,572	154,353
Mar. 1	61,820	11,651	4,784	21,853	48,213	10,736	159,057
Apr. 1	61,036	13,656	2,506	21,464	50,887	11,484	161,033
May 1	56,867	14,490	1,936	20,010	58,360	11,248	162,911
June 1	56,892	13,299	3,181	20,135	53,115	10,764	157,386
July 1	65,655	14,237	2,250	20,865	42,234	14,335	159,576
Aug. 1	69,771	15,742	2,907	22,290	46,770	14,247	171,727
Sept. 1	83,673	15,332	2,964	22,960	43,355	14,748	183,032
Oct. 1	81,377	16,921	3,549	24,717	42,613	15,877	185,054
Nov. 1	79,283	19,446	2,664	26,785	42,494	15,742	186,414
Dec. 1	73,348	19,916	2,868	24,303	50,996	16,498	187,929
1954							
Jan. 1	67,688	17,920	2,867	26,713	65,036	16,116	196,340
Feb. 1	63,032	12,790	3,406	28,050	77,805	14,691	199,774
Mar. 1	63,175	12,226	4,482	28,140	83,183	14,798	206,044
Apr. 1	68,520	13,377	2,631	28,841	88,942	11,985	214,296
May 1	67,270	14,624	2,715	28,257	88,464	11,977	213,307
June 1	64,103	10,906	1,348	27,105	97,420	11,882	212,764
July 1	61,669	12,241	3,660	26,046	94,828	9,798	208,242
Aug. 1	63,093	17,196	2,592	30,301	80,820	12,210	206,212

## Receipts of Lead in Ore and Scrap By U. S. Smelters (a)

(American Bureau of Metal Statistics)

(In tons of 2,000 lbs.)

	Receipts of lead in ore			Receipts of lead in scrap etc. (b)	Total receipts in ore, & scrap
	United States	Foreign	Total		
1947 Total	401,336	52,347	453,683	71,480	525,163
1948 Total	387,967	70,994	458,961	47,898	506,859
1949 Total	420,122	93,061	513,183	58,447	571,630
1950 Total	430,072	76,160	506,232	43,666	549,898
1951 Total	376,851	75,515	452,366	36,510	488,876
1952					
August	32,393	11,166	43,559	2,560	46,119
September	32,919	5,095	38,014	3,549	41,563
October	33,770	6,925	40,695	3,707	44,402
November	30,537	14,009	44,546	2,663	47,209
December	32,769	10,317	43,086	3,690	46,776
Total	406,990	98,276	504,266	41,845	546,111
1953					
January	30,697	10,191	40,888	3,887	44,775
February	30,388	10,008	40,396	2,935	43,331
March	32,660	12,974	45,634	2,513	48,147
April	31,557	8,895	40,452	2,675	43,127
May	28,793	11,856	40,649	2,019	42,668
June	30,753	11,611	42,364	3,441	45,805
July	27,339	17,082	44,421	4,061	48,482
August	27,709	19,548	47,257	5,562	52,819
September	27,637	12,190	39,827	4,625	44,452
October	27,934	17,063	44,997	3,680	48,677
November	26,904	13,603	40,507	4,016	44,523
December	28,812	10,767	39,579	3,580	43,159
Total	351,183	155,788	506,971	42,994	549,965
1954					
January	26,202	13,309	39,511	3,162	42,673
February	29,342	10,888	40,230	3,373	43,603
March	31,520	12,006	43,526	3,550	47,076
April	28,508	13,173	41,681	4,524	46,205
May	25,762	11,141	36,903	4,484	41,387
June	28,266	11,750	40,016	3,300	43,316
July	26,975	14,984	41,959	3,742	45,701

(a) Receipts of lead in ore are computed on the basis of recoverable lead. Owing to the estimational factor in this, which is probably on the low side, and also to the possibility that some lead receipts may escape attention, these monthly totals probably understate the actual production of pig lead. (b) inclusive only of scrap smelted in connection with ore, plus some scrap received by primary refiners.

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## N. Y. Lead Price Changes

(Effective Date)

1949	Oct. 22...13.50
July 25....14.25	Nov. 3....14.00
July 27....14.50	Nov. 10....14.20
Aug. 2....14.75	Nov. 11....14.50
Aug. 18....15.125	Nov. 20....14.25
Sept. 26....14.75	Nov. 24....14.00
Oct. 3....14.25	Dec. 22....14.25
Oct. 7....13.75	Dec. 29....14.50
Oct. 14....13.00	Dec. 31....14.75
Nov. 10....12.75	1953
Nov. 16....12.50	Jan. 7....14.50
Nov. 21....12.00	Jan. 12....14.00
1950	Feb. 2....13.50
Mar. 9....11.00	Mar. 4....13.00
Mar. 14....10.50	Mar. 10....13.50
Apr. 20....10.75	Apr. 7....13.00
Apr. 26....11.00	Apr. 16....12.50
May 4....11.25	Apr. 21....12.00
May 10....11.50	Apr. 29....12.50
May 11....12.00	May 18....12.75
June 23....11.50	May 19....13.00
1951	May 26....13.15
June 28....11.00	June 11....13.50
July 12....11.50	July 20....13.75
July 13....12.00	July 23....14.00
Aug. 15....13.00	Sept. 16....13.50
Aug. 21....14.00	1954
Sept. 1....15.00	Jan. 18....13.00
Sept. 8....16.00	Feb. 18....12.50
Oct. 2...*19.00	Mar. 9....12.75
Oct. 31....17.00	Mar. 10....13.00
1952	Mar. 26....13.25
Apr. 29....18.00	Mar. 29....13.50
May 2....17.00	Apr. 1....13.75
May 12....15.00	Apr. 12....14.00
June 23....15.50	June 2....14.25
June 24....16.00	June 15....14.00
Oct. 7....15.00	Aug. 25....14.25
Oct. 14....14.00	Sept. 7....14.50

\*OPA Ceiling. †Returned to OPA Ceiling.  
\*\*OPS Ceiling.

## Antimonial Lead Stocks at Primary Refineries

(A. B. M. S.)

	(In tons of 2,000 lbs.)			
End of:	1951	1952	1953	1954
Jan.	7,293	7,430	11,572	14,961
Feb.	8,738	7,805	10,736	14,798
Mar.	7,894	9,169	11,484	11,985
Apr.	8,269	9,646	11,248	11,977
May	8,519	9,931	10,764	11,882
June	7,044	10,323	14,335	9,798
July	8,854	10,049	14,247	12,210
Aug.	7,215	11,253	14,748	.....
Sept.	6,998	9,874	15,877	.....
Oct.	6,543	10,967	15,742	.....
Nov.	6,552	11,143	16,498	.....
Dec.	6,821	12,155	16,116	.....

## Antimonial Lead Production by Primary Refineries

(A. B. M. S.)

	(In tons of 2,000 lbs.)			
End of:	1951	1952	1953	1954
Jan.	6,356	5,767	2,937	3,768
Feb.	6,504	4,395	3,682	4,257
Mar.	5,617	3,800	5,353	4,475
Apr.	5,406	3,162	5,027	4,470
May	4,378	2,347	6,497	4,373
June	4,361	5,303	9,270	3,796
July	7,624	6,352	5,259	5,991
Aug.	2,716	6,492	4,668	.....
Sept.	4,227	4,748	5,509	.....
Oct.	4,862	5,867	5,100	.....
Nov.	6,943	4,674	5,400	.....
Dec.	6,317	3,947	3,060	.....

Total 65,311 56,854 61,762 .....



## U. S. Lead Consumption

(Bureau of Mines — In Short Tons)

Metal Products	1954		
	Jan.-June	May	June
Ammunition .....	20,449	3,335	3,452
Bearing metals .....	13,817	1,921	1,912
Brass and bronze .....	9,627	1,528	1,591
Cable covering .....	66,727	9,971	11,804
Calking lead .....	22,661	4,158	4,320
Casting metals .....	4,105	718	711
Collapsible tubes .....	4,790	809	797
Foil .....	1,824	385	292
Pipes, traps and bends .....	12,285	2,050	2,272
Sheet lead .....	12,379	2,062	1,953
Solder .....	35,941	5,850	7,152
Storage batteries (antimonial lead) .....	83,302	14,231	14,964
(oxides) .....	79,457	13,255	14,476
Terne metal .....	658	116	72
Type metal .....	13,338	2,129	2,215
Total .....	381,360	62,418	67,983
<b>Pigments:</b>			
White lead .....	8,903	1,917	1,802
Red lead and litharge .....	40,766	6,701	7,212
Pigment colors .....	7,007	1,097	1,259
Other† .....	4,508	695	798
Total .....	61,184	10,410	11,071
<b>Chemicals:</b>			
Tetraethyl lead .....	82,120	15,190	13,437
Misc. chemicals .....	3,868	468	249
Total .....	85,988	15,658	13,686
<b>Misc. Uses:</b>			
Annealing .....	1,910	315	304
Galvanizing .....	791	135	146
Lead plating .....	325	57	64
Weights and ballasts .....	3,445	587	645
Total .....	6,471	1,094	1,159
<b>Other Uses</b>			
Unclassified .....	7,187	1,117	1,066
<b>Total</b>			
Reported .....	542,190	90,697	94,965
Estimated unreported consumption .....	6,000	1,000	1,000
Total .....	548,200	91,700	96,000
<b>Daily average†</b> .....	3,029	2,958	3,200

† Includes lead content of leaded zinc oxide production.  
‡ Based on number of days in month without adjustment for Sundays or holidays.

## Consumers' Lead Stocks, Receipts and Consumption

(Bureau of Mines — In Short Tons)

	Stocks at plants on May 31*	Received during June	Consumed during June	Stocks at plants on June 30
Refined soft lead .....	76,135	65,692	62,296	79,531
Antimonial lead .....	18,073	23,446	23,206	18,313
Unmelted white scrap .....	2,796	1,990	1,972	2,814
Percentage metals .....	8,223	3,453	3,462	8,214
Copper-base scrap .....	1,515	1,903	1,746	1,672
Drosses, residues, etc. ....	8,088	2,290	1,506	8,872
<b>Total</b> .....	114,830	98,774	94,188	119,416

\* Revised.  
† Excludes 777 tons of lead contained in leaded zinc oxide production.

## Consumption of Lead by Class of Product

(Bureau of Mines — In Short Tons)

	JUNE		
	Soft and Antimonial Lead	Scrap, Percentage Metal, Drosses, Etc.	Total
Metal Products .....	59,487	8,496	67,983
Pigments .....	10,230	64	10,294
Chemicals .....	13,686		13,686
Miscellaneous .....	1,159		1,159
Unclassified .....	940	126	1,066
<b>Total</b> .....	85,502	8,686	94,188

† Excludes 777 tons of lead contained in leaded zinc oxide production.

## U. K. Lead Consumption

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 pounds)

	1952	1953	1954
Jan. ....	27,986	27,192	25,786
Feb. ....	25,096	24,552	25,837
Mar. ....	24,695	25,226	29,442
Apr. ....	22,359	24,869	25,820
May ....	24,093	24,350	28,637
June ....	21,903	23,612	28,574
July ....	23,746	23,455	25,968
Aug. ....	18,542	20,599	
Sept. ....	24,902	27,426	
Oct. ....	28,946	28,014	
Nov. ....	26,996	27,358	
Dec. ....	24,056	26,582	
<b>Total</b> ...	293,320	303,753	

## American Antimony

Monthly Average Prices  
in bulk, f.o.b. Laredo  
(Cents per lb. in ton lots)

	1951	1952	1953	1954
Jan. ....	35.46	50.00	34.50	28.50
Feb. ....	42.00	50.00	34.50	28.50
Mar. ....	42.00	50.00	34.50	28.50
Apr. ....	42.00	48.85	34.50	28.50
May ....	42.00	42.077	34.50	28.50
June ....	42.00	39.00	34.50	28.50
July ....	42.00	39.00	34.50	28.50
Aug. ....	42.00	39.00	34.50	28.50
Sept. ....	42.00	39.00	34.50	
Oct. ....	42.00	39.00	34.50	
Nov. ....	44.738	35.61	33.68	
Dec. ....	50.00	34.50	28.50	
<b>Av.</b> .....	42.354	42.17	33.93	

## Lead Imports and Exports by Principal Countries

(A.B.M.S.)

Reported in pigs, bars, etc.; metric tons except where otherwise noted.

	1954		
	Apr.	May	June
<b>IMPORTS</b>			
U. S.† (s.t.) ....	28,496	29,030	30,576
Canada (s.t.) ....	41	51	
Belgium .....	1,744		
Denmark .....	2,665	1,523	1,742
France .....	2,822	4,878	5,728
Germany† .....	4,150	5,320	4,462
Italy* .....	1,012		
Netherlands ....	2,581	3,082	
Norway .....	1,250		
Sweden .....	1,265	1,139	406
Switzerland ....	1,051	643	2,351
U. K. (l.t.) ....	15,796	17,299	15,581
India (l.t.) ....	578	1,069	
<b>EXPORTS</b>			
U. S.† (s.t.) ....	56	49	95
Canada (s.t.) ....	9,606	11,483	12,017
Belgium .....	4,417		
Denmark .....	626	795	944
France .....	318	4,807	603
Germany† .....	4,023	1,861	1,390
Italy* .....	2		
Netherlands ....	350	101	
Switzerland ....	30	15	15
N. Rhodesia (l.t.)	809	921	
Australia (l.t.) ..	9,255		

† Refined.  
‡ Includes scrap.  
\* Includes lead alloys.

## French Lead Imports

(A.B.M.S.)

(In metric tons)

	1954		
	May	June	July
<b>Ore (gross weight) .....</b>	<b>6,910</b>	<b>9,353</b>	<b>6,290</b>
Greece .....	298		395
Algeria .....	5		2
Fr. Morocco .....	6,338	8,563	5,893
Fr. Equat. Africa	269	790	
<b>Pig lead:</b>			
Argentiferous ..	600		
Morocco .....	600		
<b>Non-argenti-</b>			
<b>ferous .....</b>	<b>4,278</b>	<b>5,728</b>	<b>3,739</b>
Belgium .....	12	304	57
Germany (W.) ..	246	229	480
Greece .....		200	
Spain .....		1,000	500
Algeria .....		35	
Fr. Morocco ..	2,447	1,679	1,862
Tunisia .....	1,573	2,281	840
Antimonial lead.	340	299	6

## U. K. Lead Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1954		
	May	June	July
<b>(Gross Weight)</b>			
<b>Lead and lead</b>			
alloys .....	17,299	15,581	13,650
Australia .....	12,944	10,703	5,330
Canada .....	2,750	2,800	6,938
Yugoslavia ....	1,000	175	400
United States ..	100	650	200
Peru .....	25	1,100	775
Other countries ..	480	153	7

METALS, SEPTEMBER, 1954

## Domestic Zinc Statistics

American Zinc Institute

Commencing with January, 1945, all regularly operating U. S. primary and secondary smelters are included in this report. Production from foreign ores also is included.  
(Tons of 2,000 lbs.)

	Stock Beginning	Pro- duction	Domes- tic	Shipments Export & Drawback	Gov't Acc't	Total	Stock at End	Unfilled Orders at End	Daily Avg. Prod.
1947 Total	848,027	698,281	117,305	140,230	955,816				
1947 Monthly Avg.	70,669	58,190	9,775	11,686	79,651				2,323
1948 Total	850,015	770,396	69,910	57,598	897,904				
1948 Monthly Avg.	70,842	64,200	5,826	4,800	74,826				2,323
1949 Total	870,113	648,285	56,929	91,526	796,740				
1949 Monthly Avg.	72,509	54,024	4,744	7,627	66,395				2,384
1950 Total	910,354	849,246	18,189	128,256	995,691				
1950 Monthly Avg.	75,863	70,770	1,516	10,688	82,974				2,494
1951 Total	931,833	836,800	32,067	39,949	918,816				
1951 Monthly Avg.	77,653	69,733	3,506	3,329	76,568				2,553
1952									
May	23,423	83,797	63,701	5,425	4,950	74,076	33,144	41,494	2,703
June	33,144	77,463	35,769	7,757	3,739	47,265	63,342	39,428	2,582
July	63,342	76,930	38,714	3,146	1,493	43,353	96,919	46,547	2,482
Aug.	96,919	78,167	72,968	4,091	1,381	78,435	96,651	44,822	2,521
Sept.	96,651	76,019	69,343	5,654	5,132	78,129	94,541	42,791	2,534
Oct.	94,541	80,588	71,459	3,827	4,301	79,787	95,342	37,533	2,600
Nov.	95,342	78,543	81,439	4,625	4,692	90,758	83,149	32,255	2,619
Dec.	83,149	81,363	71,175	2,615	3,562	77,352	86,160	45,264	2,627
Total	961,430	803,343	56,202	36,626	896,171				2,627
Monthly Avg.	80,119	66,945	4,683	3,052	74,681				
1953									
Jan.	87,160	81,994	77,573	2,205	901	80,879	88,475	89,782	2,645
Feb.	88,475	76,899	67,729	1,997	1,984	71,710	93,664	37,172	2,746
Mar.	93,664	83,485	72,388	1,815	3,682	77,285	99,864	54,524	2,693
Apr.	99,864	80,469	78,211	215	7,617	86,043	94,280	38,722	2,681
May	94,280	82,422	75,648	259	8,343	84,250	92,462	43,271	2,659
June	92,462	81,617	72,612	36	4,136	76,784	97,285	44,307	2,721
July	97,285	80,825	69,498	94	4,612	74,204	103,906	32,327	2,607
Aug.	103,906	83,241	65,450	428	3,372	69,250	117,897	32,988	2,685
Sept.	117,897	81,211	55,167	165	2,215	57,547	141,561	27,323	2,704
Oct.	141,561	84,031	65,470	482	1,223	67,175	158,417	25,950	2,711
Nov.	158,417	75,891	63,617	2,848	2,220	68,685	165,623	29,437	2,530
Dec.	165,623	79,116	55,487	6,282	2,127	63,896	180,843	35,466	2,552
Total	971,191	818,860	16,326	42,332	877,508				2,661
Monthly Avg.	80,933	68,238	1,361	3,528	73,126				2,661
1954									
Jan.	180,843	78,561	54,865	3,681	2,146	60,692	198,712	26,378	2,534
Feb.	198,712	68,020	57,781	7,179	1,778	66,738	199,994	28,943	2,429
Mar.	199,994	71,186	66,929	1,703	1,448	70,080	201,100	31,702	2,296
Apr.	201,100	70,255	67,512	977	2,489	70,616	200,740	31,702	2,342
May	200,740	73,645	61,859	670	2,037	64,566	209,829	35,624	2,376
June	209,829	70,749	59,157	1,475	13,214	73,846	198,027	35,899	2,282
July	201,124	70,749	59,157	1,475	13,214	73,846	198,027	35,899	2,282
Aug.	198,027	71,793	61,298	1,525	13,712	76,535	193,285	41,059	2,316

## U. S. Consumption of Slab Zinc

Bureau of Mines  
By Industries (Short Tons)

	Galvan- izers	Zn-base alloy	Brass products	Rolled zinc	Zinc oxide & other	Total
1947 Total	359,583	215,002	108,591	71,151	26,328	780,675
1948 Total	365,979	232,482	107,422	76,672	24,247	806,802
1949 Total	348,544	197,387	84,257	55,100	17,643	702,931
1950 Total	434,094	281,385	136,451	67,779	27,656	947,365
1951 Total	386,373	266,442	141,456	64,000	28,738	887,009
1952						
May	32,959	17,420	11,025	3,797	2,793	67,994
June	12,215	15,007	10,307	3,593	2,190	43,312
July	12,160	13,422	8,137	3,339	1,817	38,875
August	34,840	17,314	11,782	4,814	1,859	70,609
September	37,394	21,178	13,682	4,478	2,097	78,829
October	40,466	23,286	17,258	4,938	2,937	88,885
November	36,333	21,493	14,776	4,372	3,087	80,061
December	36,717	25,146	16,212	4,699	3,217	85,991
Total	375,563	236,022	155,311	51,508	30,885	849,289
1953						
January	36,974	27,465	16,739	4,593	3,332	89,103
February	34,882	27,092	14,880	3,914	3,330	84,098
March	37,375	30,651	17,494	5,360	3,572	94,452
April	36,181	29,790	17,162	5,109	3,302	91,544
May	34,790	27,398	17,748	5,082	3,408	88,426
June	32,758	27,099	17,564	5,309	3,129	85,859
July	30,535	22,832	12,361	4,053	3,250	73,031
August	33,074	22,740	15,739	4,440	3,107	79,100
September	33,465	21,745	13,374	4,329	3,221	76,134
October	34,354	22,854	13,709	4,077	3,077	78,071
November	29,989	21,408	9,779	3,887	2,482	67,545
December	28,785	24,272	10,758	3,631	2,827	70,273
Total	403,162	305,346	177,301	53,784	38,037	977,636
1954						
January	26,731	21,804	10,266	4,014	3,029	65,844
February	27,243	22,184	8,486	4,035	2,230	64,178
March	31,298	26,549	9,026	4,246	2,520	73,639
April	32,970	24,176	8,181	3,933	2,395	71,655
May	32,935	22,081	8,450	3,848	3,028	70,342
June	34,827	23,534	8,860	4,214	2,880	74,315

METALS, SEPTEMBER, 1954

## Prime Western Zinc Prices

(East St. Louis)

Average Prices, Cents Per Pound

	1951	1952	1953	1954
Jan.	17.50	19.50	12.596	9.76
Feb.	17.50	19.50	11.48	9.375
Mar.	17.50	19.50	11.024	9.66
Apr.	17.50	19.50	11.00	10.25
May	17.50	19.50	11.00	10.29
June	17.50	15.74	11.00	10.96
July	17.50	15.00	11.00	11.00
Aug.	17.50	14.077	11.00	11.00
Sept.	17.50	14.01	10.18	....
Oct.	19.426	13.306	10.00	....
Nov.	19.50	12.50	10.00	....
Dec.	19.50	12.50	10.00	....
Av.	17.994	16.22	10.857	....

## High Grade Zinc Prices

(Delivered)

N. Y. Monthly Averages

(Cents per pound)

	1951	1952	1953	1954
Jan.	18.85	20.85	13.946	11.11
Feb.	18.85	20.85	12.83	10.725
Mar.	18.85	20.85	12.379	11.01
Apr.	18.85	20.85	12.35	11.60
May	18.85	20.85	12.35	11.64
June	18.85	17.09	12.35	12.31
July	18.85	16.35	12.47*	12.35
Aug.	18.85	15.427	12.60	12.35
Sept.	18.85	15.36	11.53	....
Oct.	20.776	14.656	11.35	....
Nov.	20.85	13.85	11.35	....
Dec.	20.85	13.85	11.35	....
Av.	19.344	17.57	12.207	....

\*East of Continental Divide.

## U. K. Zinc Consumption

(British Bureau of Non-Ferrous Metal Statistics)

	1952	1953	1954
Jan.	26,206	21,179	25,615
Feb.	24,454	20,311	25,286
Mar.	24,697	21,662	29,001
Apr.	22,072	20,421	26,084
May	21,938	20,105	27,551
June	19,637	21,141	29,665
July	18,807	19,226	23,012
Aug.	16,511	17,341	....
Sept.	21,192	26,465	....
Oct.	22,264	26,865	....
Nov.	19,570	26,982	....
Dec.	18,256	26,689	....
Total	255,657	269,170	....

## Mine Production of Zinc in United States

(U. S. Bureau of Mines)

	(In short tons)			
	Eastern States	Central States	Western States	Total U.S.*
1949 Total	156,334	78,284	349,264	583,882
1950 Total	170,726	82,300	365,175	618,207
1951 Total	188,525	92,457	398,128	679,111
1952 Total	185,939	94,410	385,652	666,001
1953				
Feb.	15,351	7,360	26,645	49,356
Mar.	16,954	7,529	27,197	51,680
Apr.	16,215	7,459	27,429	51,103
May	14,864	6,851	26,075	47,790
June	15,628	5,015	25,722	46,365
July	15,640	2,771	23,894	42,305
Aug.	14,288	3,104	23,573	40,965
Sept.	14,169	2,841	22,178	39,188
Oct.	14,741	2,821	21,209	38,771
Nov.	14,524	1,990	19,946	36,460
Dec.	14,709	1,646	21,390	37,745
Total	183,612	57,300	293,818	534,730
1954				
Jan.	13,772	4,575	20,505	38,852
Feb.	14,379	4,733	19,010	38,122
Mar.	15,242	5,462	20,548	41,252
Apr.	14,188	4,863	20,894	39,945
May	13,746	5,210	21,075	40,031
June	14,563	5,410	20,463	40,436
July	13,866	5,153	19,359	38,378

\* Includes Alaskan output in some months.

## Mine Production of Lead in United States

(U. S. Bureau of Mines)

	(In short tons)			
	Eastern States	Central States	Western States	Total U.S.*
1949 Ttl.	8,719	156,400	238,843	404,032
1950 Ttl.	8,470	163,489	257,766	429,875
1951 Ttl.	7,426	152,258	230,723	390,428
1952 Ttl.	11,252	150,302	228,607	390,161
1953				
Feb.	905	11,604	16,916	29,427
Mar.	1,063	12,417	17,861	31,347
Apr.	1,005	12,943	17,098	31,052
May	911	12,268	15,866	29,045
June	793	11,700	15,856	28,349
July	764	11,277	14,323	26,364
Aug.	596	10,565	14,922	26,083
Sept.	616	10,595	15,263	26,474
Oct.	802	11,065	14,785	26,652
Nov.	813	10,022	13,836	24,671
Dec.	786	11,592	14,729	27,107
Ttl.	9,970	136,650	188,776	335,412
1954				
Jan.	731	10,937	13,027	24,695
Feb.	684	11,709	15,050	27,443
Mar.	785	12,835	15,889	29,539
Apr.	752	11,786	14,306	26,844
May	738	10,970	13,687	25,395
June	782	11,424	13,981	26,209
July	681	11,182	13,265	25,128

\* Includes Alaskan output in some months.

## Mine Production of Gold in United States

(U. S. Bureau of Mines)

	Eastern States	Western States	Alaska*	Total
1949 Ttl.	2,008	1,726,089	220,903	1,949,000
1950 Ttl.	2,061	2,108,756	282,866	2,391,683
1951 Ttl.	2,511	1,749,580	205,452	1,957,543
1952 Ttl.	1,948	1,650,660	233,428	1,886,036
1953				
July	127	143,296	42,650	186,073
Aug.	97	140,680	39,174	179,951
Sept.	129	147,256	48,544	195,929
Oct.	120	147,753	41,224	189,097
Nov.	144	139,473	30,591	170,208
Dec.	114	137,129	20,000	157,243
Ttl.	1,529	1,689,668	273,479	1,964,676
1954				
Jan.	105	137,310	1,585	139,000
Feb.	126	130,410	1,212	131,748
Mar.	158	141,266	7,893	149,317
Apr.	69	134,616	3,538	138,223
May	132	126,844	13,939	140,915
June	147	138,810	38,790	177,747

\* Alaska totals based on mint and smelter receipts.

## U. S. Silver Production\*

(A.B.M.S.)

	Dom.†	For.	Total
bars, 0.999 fine, and other refined forms)			
(In thousands of ounces; commercial)			
1949 Total	34,559	28,226	62,785
1950 Total	42,068	37,656	79,724
1951 Total	39,967	33,837	73,804
1952 Total	40,245	36,653	76,898
1953			
February ..	3,112	2,640	5,752
March .....	3,175	3,471	6,646
April .....	3,018	3,193	6,211
May .....	2,823	3,095	5,918
June .....	1,909	2,536	4,445
July .....	2,525	2,533	5,058
August .....	2,652	4,334	6,986
September ..	2,301	2,613	4,914
October .....	3,558	3,431	6,989
November ..	2,551	4,707	7,218
December ..	3,751	1,811	5,562
Total .....	34,697	37,764	72,461
1954			
January ...	3,372	2,674	6,046
February ..	3,163	3,729	6,957
March .....	3,775	3,729	7,504
April .....	3,643	3,708	7,351
May .....	3,229	3,335	6,564
June .....	3,609	3,212	6,821
July .....	1,997	2,940	4,937

\* The separation between silver of foreign and domestic origin on the basis of refined bars and other refined forms is only approximate.

† Includes purchases of crude silver by the U. S. Mint.

## Mine Production of Recoverable Silver in United States

(U. S. Bureau of Mines)

	(In Fine Ounces)			
	Eastern States	Missouri	Western States	Alaska*
1951 Total	121,485	237,213	39,073,645	27,760
1952 Total	158,004	391,707	38,515,679	31,825
1953				
June .....	8,541	32,368	3,051,483	4,655
July .....	15,363	32,722	2,951,093	5,817
August .....	10,184	230	3,006,888	5,134
September ..	15,987	420	3,042,472	6,441
October .....	12,546	500	3,124,441	5,531
November ..	18,126	400	2,931,892	4,236
December ..	10,112	354	3,021,387	3,000
Total .....	158,707	223,500	36,354,685	39,111
1954				
January .....	11,662	25,220	2,906,976	256
February .....	9,333	20,327	2,981,326	178
March .....	15,643	21,825	3,314,479	1,078
April .....	11,103	17,795	3,093,436	547
May .....	11,591	17,997	3,270,529	1,970
June .....	10,667	18,533	3,101,547	5,275

\* Alaska totals based on mint and smelter receipts.

\*\* Includes a total of 3,708 oz. from Illinois.

## Production of Primary Aluminum in the U. S.\*

(U. S. Bureau of Mines)

	(In short tons)					
	1947	1948	1949	1950	1951	1952
Jan. ....	50,045	48,767	54,356	50,023	67,954	76,934
Feb. ....	47,002	45,699	49,749	54,493	62,740	72,374
Mar. ....	43,032	51,874	54,852	58,747	70,022	77,069
Apr. ....	51,007	53,277	54,076	58,024	67,701	76,880
May ....	51,116	55,450	56,909	51,929	67,720	80,803
June ....	46,259	48,557	54,184	60,400	67,454	77,476
July ....	47,998	52,937	55,777	63,518	72,698	78,368
Aug. ....	47,054	54,953	52,001	63,006	73,816	85,175
Sept. ....	43,228	53,255	49,742	54,449	69,429	76,882
Oct. ....	43,959	54,526	45,790	62,915	72,647	77,312
Nov. ....	43,461	50,174	35,865	62,276	72,246	74,639
Dec. ....	47,589	53,474	34,161	65,897	72,454	83,419
Total .....	571,750	623,456	603,462	718,622	836,881	937,330

\*Based on producers' reports to War Production Board to July, 1946. Thereafter to Bureau of Mines. The monthly figures are preliminary in nature and will not add to the totals derived from the Bureau's annual industry canvass.

## Average Silver Prices

	(Cents per fine ounce)			
	1951	1952	1953	1954
Jan.	88.71	88.00	84.44	85.25
Feb.	90.16	88.00	85.25	85.25
Mar.	90.16	88.00	85.25	85.25
Apr.	90.16	88.00	85.25	85.25
May	90.16	85.405	85.25	85.25
June	88.553	82.75	85.25	85.25
July	90.16	82.886	85.25	85.25
Aug.	90.16	83.25	85.25	...
Sept.	90.16	83.25	85.25	...
Oct.	88.14	83.25	85.25	...
Nov.	88.00	83.25	85.25	...
Dec.	88.00	83.25	85.25	...
Av.	89.377	84.94	85.183	...
Aug.	90.16	83.25	85.25	85.25

Note — The averages are based on the price of refined bullion imported on or after August 31, 1942.



## U. S. Copper Exports (A.B.M.S.) (Bureau of the Census)

	(In tons of 2,000 lbs.)		
	1954	1954	1954
	Apr.	May	June
Ore, conc., etc., (content) .....	81	616	53
Refined ingots, bars, etc.† .....	20,142	22,686	20,216
Canada .....	1	...	1
Argentina .....	876	...	...
Brazil .....	3,466	3,655	3,625
Austria .....	298	110	105
Belgium .....	280	14	...
Denmark .....	213	56	179
France .....	2,495	1,478	5,195
W. Germany .....	2,282	4,323	4,030
Italy .....	2,272	2,352	960
Netherlands .....	1,602	2,071	1,499
Norway .....	565	336	...
Sweden .....	336	112	...
Switzerland .....	1,339	1,567	336
U. Kingdom .....	3,077	2,493	2,627
India .....	561	823	588
Japan .....	436	1,126	32
Australia .....	...	2,128	1,000
Other countries .....	43	42	39

### Total Exports:

Crude & refined	20,223	23,302	20,269
Pipes & tubes ..	103	88	132
Plates & sheets ..	14	14	12
Rods .....	10	6	24
Wire, bare .....	744	631	602
Building wire and cable† ..	347	350	362
Weatherproof wire† .....	44	161	17
Insulated copper wire, n.e.s.† ..	1,725	697	2,672

† Includes exports of refined copper resulting from scrap that was reprocessed on toll for account of the shipper.

‡ Gross weight; n.e.s. — not elsewhere specified.

## U. S. Zinc Exports (A.B.M.S.) (Bureau of the Census)

	(In tons of 2,000 lbs.)		
	1954	1954	1954
	Apr.	May	June
Slabs, blocks, etc. ....	731	862	1,058
Canada .....	...	5	...
Brazil .....	246	181	386
Chile .....	...	3	...
Belgium .....	...	336	280
France .....	...	56	...
Germany (W.) ..	224	...	56
Netherlands .....	112	...	...
Switzerland .....	...	280	224
Korea .....	10	...	...
India .....	112	...	...
Other countries ..	27	1	1112
Total Exports:			
Ore, conc. slab, blocks ..	731	862	1,058
Scrap: ashes, dross & skimmings ..	768	531	1,898
Rolled in sheets, plates & strips†	417	326	332
Alloys ex brass and bronze ..	24	33	72
Die castings .....	48	64	29

† Includes photoengraving sheets and plates.

‡ To Sweden.

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## U. S. Copper Imports (A.B.M.S.) (Bureau of the Census)

	(In tons of 2,000 lbs.)		
	1954	1954	1954
	Apr.	May	June
Ore, matte & reg. (cont.) .....	10,137	10,591	7,935
Canada .....	2,267	1,709	2,991
Mexico .....	1,224	1,020	1,268
Cuba .....	19	2,615	1,300
Bolivia .....	96	303	441
Chile .....	...	1,147	879
Peru .....	786	951	661
Philippines .....	4,943	1,835	9
U. of S. Africa ..	705	635	322
Australia .....	64	339	26
Other countries ..	33	37	38
Blister copper (content) ..	22,615†	21,085	27,047†
Canada .....	...	1,507	...
Mexico .....	1,877	2,169	1,933
Chile .....	8,152	8,591	14,909
Belg. Congo .....	1,047†	1,102	...
N. Rhodesia .....	10,445	4,223	6,114
U. of S. Africa ..	1,094	1,664	1,666
Turkey .....	...	548	...
Australia .....	...	1,281	1,334
Refined cathodes and shapes ..	13,073†	19,856	46,484
Canada .....	4,065	2,534	4,242
Mexico .....	...	1,212	...
Chile .....	5,709	14,051	39,262
Peru .....	999	737	1,112
Belgium .....	...	19	...
W. Germany .....	...	...	4
Norway .....	695	500	973
Yugoslavia .....	606	303	248
Belg. Congo .....	999†	500	...
Other countries ..	...	...	643
Total Imports:			
Crude and refined .....	45,825†	51,532	81,466
In rolls, sheets or rods .....	551	435	519
Old and scrap (content) ..	507	394	404
Brass scrap and old (cu. cont.) .....	316	199	318

† Revised.

‡ Of which 1,091 tons reported as from Angola.

## U. S. Lead Exports (A.B.M.S.) (Bureau of the Census)

	(In tons of 2,000 lbs.)		
	1954	1954	1954
	Apr.	May	June
Lead ore, concentrates, matte & base bullion (content) ..	84	...	...
Japan .....	84	...	...
Pigs and bars .....	56	49	95
Canada .....	...	2	3
Cuba .....	5	2	3
Guatemala .....	28	...	...
Brazil .....	4	...	...
Chile .....	3	...	...
Colombia .....	3	...	...
Venezuela .....	3	...	2
Philippines .....	...	33	80
Other countries ..	10	12	7
Total Exports:			
Ore, base bullion, refined ..	140	49	95
Sheets & pipes ..	42	44	39
Typemetal .....	72	42	23
Antimonial .....	7	25	19
Scrap .....	255	561	492

## U. S. Lead Imports (A.B.M.S.) (Bureau of the Census)

	(In tons of 2,000 lbs.)		
	1954	1954	1954
	Apr.	May	June
Ore, matte, etc. (content) ..	11,821	13,165	11,201
Canada .....	2,472	2,850	3,607
Mexico .....	173	102	201
Guatemala .....	156	189	...
Honduras .....	244	86	...
Bolivia .....	775	680	1,468
Peru .....	3,429	3,834	3,137
U. of S. Africa ..	3,078	3,392	1,475
Philippines .....	208	147	307
Australia .....	1,194	1,881	981
Other countries ..	92	4	25
Base bullion (content) .....	...	...	41
Peru .....	...	...	41
Pigs and bars .....	28,496	29,030	30,576
Canada .....	5,607	5,470	7,935
Mexico .....	9,016	8,252	6,142
Peru .....	1,510	2,456	2,159
Belgium .....	55	83	201
Denmark .....	525	473	834
Netherlands .....	...	...	44
Spain .....	551	386	...
U. Kingdom .....	23	...	65
Yugoslavia .....	...	3,767	5,646
Algeria .....	...	...	4,740
Fr. Morocco .....	4,187	2,207	...
Australia .....	7,003	5,936	2,810
Other countries ..	19	...	...
Total Imports:			
Ore, base bullion, refined .....	40,317	42,195	41,818
Lead scrap, dross, etc. (cont.) .....	163	153	931
Antimonial lead & typemetal ..	227	695	545
Lead content thereof .....	157	535	438

## U. S. Zinc Imports (A.B.M.S.) (Bureau of the Census)

	(In tons of 2,000 lbs.)		
	1954	1954	1954
	Apr.	May	June
Zinc ore (content) .....	31,218	32,037	38,463
Canada .....	11,116	11,358	13,354
Mexico .....	14,372	12,431	16,436
Guatemala .....	...	49	...
Honduras .....	118	80	...
Bolivia .....	688	71	637
Colombia .....	7	...	...
Chile .....	...	444	197
Peru .....	4,115	6,857	7,392
U. of S. Africa ..	400	438	163
Australia .....	371	280	222
Philippines .....	31	29	62
Zinc blocks, pigs, etc. ....	14,397	10,139	14,559
Canada .....	8,862	8,122	11,376
Mexico .....	105	...	219
Peru .....	900	709	961
Belgium .....	...	169	282
Germany (W.) ..	1,323	...	...
Italy .....	534	55	457
Netherlands .....	882	...	55
Belg. Congo .....	1,791	524	1,218
Australia .....	...	560	...
Total Imports:			
Zinc ore, blocks, pigs ..	45,615	42,176	53,022
Dross and skim. ....	...	45	...
Old and worn out ..	170	...	232

# World Production of Copper (American Bureau of Metal Statistics) (In Tons of 2,000 Pounds)

	United States	Canada	Mexico (crude)	Chile	Peru	Fed. Rep. of Germany	Norway	United Kingdom	Yugoslavia	India	Japan	Turkey	Australia	Northern Rhodesia	Union of South Africa
	(a)	(b)	(c)	(d)	(d)	(e)	(f)	(g-h)	(c)	(f-h)	(e)	(f)	(c)	(c)	(d)
1951 Total	964,589	269,971	60,511	396,937	25,495	234,647	.....	.....	.....	.....	100,254	.....	16,984	349,667	36,104
1952 Total	961,886	258,868	60,874	422,493	22,640	206,747	11,205	163,968	36,176	7,009	104,060	2,546	21,119	336,883	37,459
1953															
Jan.	78,124	23,824	5,325	35,128	1,670	19,549	.....	.....	2,701	.....	6,856	.....	1,308	26,007	3,447
Feb.	75,172	20,897	4,732	33,738	1,316	16,326	.....	.....	2,448	.....	7,089	.....	2,557	22,038	3,146
Mar.	82,221	24,039	5,608	30,203	2,125	20,358	.....	.....	3,210	.....	7,806	.....	3,849	28,636	3,100
Apr.	81,739	22,197	4,766	39,397	2,100	19,097	.....	.....	2,066	.....	7,626	.....	2,948	30,001	3,523
May	84,091	22,299	4,624	41,538	2,284	20,189	.....	.....	2,866	.....	7,906	.....	2,929	25,280	2,142
June	75,838	22,110	5,931	35,744	2,223	19,962	.....	6,625	3,354	455	7,797	.....	4,164	35,793	2,690
July	79,938	22,901	5,621	29,502	2,359	20,914	.....	4,679	3,081	710	7,444	.....	4,711	34,775	3,980
Aug.	79,376	21,437	5,352	29,652	2,513	18,836	.....	8,164	3,158	585	8,681	2,343	3,450	32,207	3,309
Sept.	78,952	19,601	4,974	29,417	2,121	19,554	.....	6,412	3,340	702	9,600	2,536	3,920	28,579	3,506
Oct.	83,433	19,229	5,888	20,340	2,140	20,865	.....	11,172	3,336	769	9,849	.....	3,479	35,382	3,166
Nov.	79,934	17,315	5,486	9,669	2,268	20,466	.....	13,971	2,612	759	9,581	1,618	3,240	34,262	2,572
Dec.	78,500	17,901	5,075	29,435	2,303	21,429	.....	11,408	2,209	717	10,346	2,338	3,784	31,151	4,041
1954															
Jan.	76,912	17,791	5,543	29,759	1,910	20,687	1,111	18,079	2,833	357	10,211	.....	1,758	29,856	3,816
Feb.	68,084	18,370	5,146	28,673	1,465	19,359	939	11,404	1,330	718	10,052	.....	2,483	25,947	3,513
Mar.	73,429	26,679	4,646	21,441	1,599	21,264	1,227	10,926	2,249	769	11,240	.....	4,412	33,021	2,544
Apr.	70,977	28,520	4,380	21,116	2,412	22,494	1,176	13,289	3,135	728	11,076	.....	4,446	36,250	4,863
May	71,571	28,279	4,057	22,782	2,620	21,104	1,128	11,670	3,094	711	11,030	.....	.....	32,154	.....
June	74,113	.....	4,471	.....	2,524	20,016	.....	11,920	.....	647	.....	.....	.....	31,982	.....
July	64,504	.....	5,650	.....	2,400	.....	.....	.....	.....	.....	.....	.....	.....	32,077	.....

(a) Reported by Copper Institute. Crude, "recoverable contents of mine production or smelter production or shipments, and custom intake". Does not include intake of scrap nor of imported ore except that received from Cuba and Philippines. (b) Blister copper plus recoverable copper in concentrates, matte, etc., exported. (c) Crude copper, i. e., copper content of blister or converter copper as originally produced in the several countries, although some of it may be refined at home; e. g., in Rhodesia. (d) Blister and/or refined. (e) Refined. There are quantities of scrap included in the electrolytic production in addition to that reported, tonnage of which is not obtainable. (f) Smelter production. (g) Refinery production from imported blister only. (h) British Bureau of Non-Ferrous Metal Statistics. \*. Refined.

# World Production of Refined Lead (American Bureau of Metal Statistics) (In Tons of 2,000 Pounds)

	United States	Canada	Mexico	Peru	Belgium	France	Fed. Rep. of Germany	Italy	Spain	Yugoslavia	Japan	Australia	French Morocco	Tunisia	Rhodesia	Total
	(a)	(b)	(c)	(d)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
1951 Total	486,874	162,712	219,352	48,824	77,873	53,831	170,766	39,683	45,460	.....	18,516	217,301	20,287	25,476	15,646	1,602,601
1952 Total	532,778	183,389	248,551	53,536	83,139	59,607	152,751	38,504	46,060	74,053	20,382	217,293	31,224	28,264	14,112	1,783,643
1953																
Jan.	47,295	15,327	20,591	5,300	7,248	4,857	11,968	1,327	3,947	7,044	1,704	1,543	2,414	1,675	409	132,649
Feb.	45,423	14,232	7,361	4,674	7,263	4,480	12,378	2,806	5,438	6,927	1,705	11,748	2,137	3,739	1,120	131,431
Mar.	47,993	15,112	24,883	5,809	7,251	5,348	14,149	3,466	4,601	7,098	2,079	20,683	2,945	1,612	1,344	164,373
Apr.	46,729	13,758	15,830	4,412	7,081	4,894	13,484	4,335	4,202	6,898	2,090	19,863	3,009	3,628	952	151,165
May	43,187	16,343	27,932	5,449	6,907	4,884	13,698	4,758	4,620	6,602	2,080	25,190	2,401	1,890	1,310	167,196
June	36,880	14,888	15,265	6,053	6,208	4,247	14,217	2,965	5,248	6,594	1,955	21,992	1,935	2,728	1,036	142,211
July	40,210	9,660	18,002	5,367	6,206	3,352	13,588	2,259	3,708	6,068	2,103	22,958	2,703	2,459	1,120	139,763
Aug.	38,022	11,615	19,801	5,428	6,164	3,866	12,265	2,359	4,266	6,281	1,155	22,312	2,169	2,889	1,120	132,262
Sept.	42,154	12,382	13,394	5,865	6,424	6,529	12,880	3,197	4,015	5,872	2,353	24,817	2,340	2,501	1,120	142,631
Oct.	44,741	12,646	19,907	5,935	6,457	6,208	14,610	5,072	5,635	6,984	2,071	23,754	2,639	2,666	1,120	160,445
Nov.	32,562	14,876	17,847	5,302	6,648	5,637	15,165	4,608	3,702	5,090	1,842	20,095	2,686	1,963	1,120	159,143
Dec.	48,687	14,913	19,262	5,634	6,900	6,584	15,674	3,635	4,406	6,581	2,467	26,464	2,590	2,643	1,120	167,560
1954																
Jan.	533,883	166,356	225,075	66,520	84,162	60,887	164,077	40,786	53,799	78,038	25,513	241,419	29,970	30,397	12,891	1,813,779
Feb.	48,518	13,089	17,374	5,292	6,719	6,501	15,205	2,221	4,019	5,771	2,820	25,901	2,944	2,716	1,120	160,206
Mar.	42,046	12,326	16,052	3,620	6,792	6,078	12,996	3,368	4,888	2,125	2,874	19,085	3,309	2,486	1,008	139,053
Apr.	50,808	14,243	22,638	5,303	6,416	5,767	14,445	3,963	6,033	5,832	3,276	17,244	3,297	2,817	1,400	163,582
May	46,730	14,875	19,819	5,609	6,063	7,666	13,147	3,255	4,637	6,917	.....	17,796	2,966	2,805	1,205	.....
June	49,139	15,107	20,723	4,847	6,101	6,953	13,029	3,668	5,729	6,762	.....	23,052	2,562	2,069	1,120	.....
July	42,317	.....	17,651	6,332	.....	6,256	14,640	3,601	.....	.....	.....	1,788	3,837	.....	1,568	.....
Aug.	35,710	.....	19,765	5,228	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,456	.....

(a) Production credited to Australia includes lead refined in England from Australian base bullion.

# World Production of Slab Zinc (American Bureau of Metal Statistics) (In Tons of 2,000 Pounds)

	United States (a)	Can. (b)	Mexico (c)	Peru (d)	Belgium (e)	France (f)	Fed. Rep. of Germany (g)	Great Britain (h)	Italy (i)	Netherlands (j)	Norway (k)	Spain (l)	Yugo- slavia (m)	Japan (n)	Austra- lia (o)	Rhoda- sia (p)	Total
1951																	
Total	931,833	218,548	57,990	1,003	220,479	82,184	155,024	78,101	52,058	24,924	44,971	23,444	....	62,109	88,103	25,301	2,065,216
1952																	
Total	961,430	223,140	61,456	5,491	205,909	88,255	162,272	76,981	60,438	28,555	43,061	23,329	15,943	77,203	97,931	25,637	2,141,058
1953																	
Jan.	81,994	18,371	5,296	928	18,025	7,661	13,717	5,573	3,770	2,596	4,082	2,105	1,291	6,310	8,336	2,150	182,205
Feb.	76,899	16,677	4,814	656	18,363	6,747	12,051	6,173	3,635	2,287	3,112	1,931	1,170	5,737	7,447	1,971	171,670
Mar.	83,485	20,693	5,273	701	19,041	8,152	13,425	7,828	4,664	2,530	3,951	2,179	1,485	7,366	8,298	2,240	191,311
Apr.	80,459	20,004	4,154	839	19,043	7,987	12,927	6,317	5,484	2,417	3,778	2,148	1,484	7,456	7,951	2,184	184,632
May	82,422	20,090	4,814	631	19,216	8,088	13,228	6,423	6,594	2,296	3,691	2,140	1,458	7,456	8,211	2,268	189,026
June	81,617	20,590	4,918	406	17,789	7,185	13,023	7,980	6,508	2,126	3,527	2,095	1,381	7,271	7,249	2,408	186,023
July	80,825	21,595	5,071	757	16,824	7,447	13,414	6,193	6,356	2,179	1,398	1,985	1,281	7,833	8,195	2,464	184,241
Aug.	83,241	21,703	5,096	1,002	16,135	5,295	13,783	5,947	6,444	2,235	3,784	1,889	1,219	7,803	8,292	2,520	184,167
Sept.	81,211	21,157	4,975	882	16,248	6,497	13,821	7,355	5,941	2,178	4,506	1,965	1,272	7,417	8,164	2,464	183,899
Oct.	84,031	21,880	5,077	967	16,584	7,275	14,484	5,808	5,748	2,305	4,469	2,256	1,337	7,528	9,545	2,436	191,766
Nov.	75,891	21,051	4,931	932	17,183	7,460	14,392	8,211	5,446	2,276	2,916	2,259	1,314	6,943	9,471	2,576	181,006
Dec.	79,116	21,899	5,170	1,119	18,218	9,424	15,098	7,623	5,035	2,286	2,852	2,324	1,346	8,176	9,841	2,688	192,215
Total	971,191	247,707	59,589	9,819	213,215	89,218	163,430	81,436	65,730	27,721	42,566	24,152	16,037	86,933	101,003	28,370	2,228,017
1954																	
Jan.	78,561	17,156	5,151	1,065	19,032	10,081	15,453	7,114	3,358	3,670	2,261	1,305	8,883	9,482	2,520	188,550	
Feb.	68,020	15,199	4,710	1,078	18,963	8,988	13,872	6,676	4,674	2,114	3,629	1,938	1,210	7,711	8,961	2,380	170,123
Mar.	71,186	16,550	5,258	1,537	19,213	10,645	15,420	9,119	5,503	2,474	4,522	2,137	1,236	9,588	10,012	2,520	186,920
Apr.	70,258	16,250	4,798	1,365	19,262	10,413	15,859	7,253	5,992	2,562	4,153	1,990	1,386	9,880	10,031	2,576	189,225
May	73,654	16,530	5,090	1,689	20,095	10,645	15,420	9,119	5,503	2,474	4,522	2,137	1,236	9,588	10,012	2,520	186,920
June	71,540	17,017	4,826	1,641	.....	10,159	15,014	9,365	5,857	2,479	4,042	.....	.....	.....	9,374	2,604	.....
July	70,647	17,917	5,038	1,573	.....	.....	.....	6,316	.....	2,600	4,233	.....	.....	.....	.....	2,604	.....

## U. K. Virgin Copper Stocks

British Bureau of Non-Ferrous Metal Statistics

(In long tons)

	1953	1954
At start of: 1952	1953	1954
Jan. ....	113,359	131,968
Feb. ....	106,890	135,221
Mar. ....	103,123	146,911
Apr. ....	103,521	149,177
May ....	107,906	165,385
June ....	114,119	182,500
July ....	106,809	185,946
Aug. ....	107,619	198,609
Sept. ....	121,152	27,422
Oct. ....	121,649	31,850
Nov. ....	119,052	36,824
Dec. ....	126,394	50,407

## U. K. Refined Lead Stocks

British Bureau of Non-Ferrous Metal Statistics

(In long tons)

	1953	1954
At start of: 1952	1953	1954
Jan. ....	77,167	23,090
Feb. ....	89,831	27,486
Mar. ....	104,206	16,518
Apr. ....	110,598	13,781
May ....	116,249	17,144
June ....	120,261	29,007
July ....	121,576	26,868
Aug. ....	116,283	25,820
Sept. ....	116,480	28,290
Oct. ....	109,323	22,886
Nov. ....	107,160	29,279
Dec. ....	88,514	29,174

## U. K. Stocks of Zinc

British Bureau of Non-Ferrous Metal Statistics

(In tons of 2,240 lbs.)

Virgin Zinc Zinc Conc.

	1953	1954	1953	1954
At start of:	1953	1954	1953	1954
Jan. ....	166,050	27,652	52,422	45,731
Feb. ....	16,545	35,411	61,346	42,581
Mar. ....	20,401	37,646	64,625	33,912
Apr. ....	23,783	40,710	56,489	26,076
May ....	30,821	38,953	58,815	32,517
June ....	34,078	38,409	56,514	33,801
July ....	31,661	40,389	55,218	39,280
Aug. ....	34,609	45,825	54,467	43,705
Sept. ....	33,348	...	55,702	...
Oct. ....	27,981	...	49,636	...
Nov. ....	24,731	...	46,173	...
Dec. ....	22,462	...	45,094	...

## U. K. Copper Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

Apr. May June

	Apr.	May	June
(Gross Weight)			
Copper and copper alloys	33,514	35,276	40,372
Copper unwrought:			
Electrolytic	22,411	18,626	25,104
Other refined	829	3,371	1,827
Blister or rough	10,264	13,229	13,418
Rods, sections, etc., and wire of brass and other alloys of copper	5	3	15
Other	5	47	8
U. of S. Africa	400	30	200
N. Rhodesia	20,833	19,802	23,494
Canada	6,242	5,749	6,569
Belgium	1,671	1,250	1,500
Germany (W.)	1,764	881	625
Sweden	...	...	2
United States	1,097	3,389	2,141
Chile	500	4,050	4,924
Other countries	1,007	125	917
Total	33,514	35,276	40,372

## Copper Consumption in United Kingdom

British Bureau of Non-Ferrous Metal Statistics

(In tons of 2,240 pounds)

	Unalloyed	Brass, etc	Sulphate	Total	Virgin	Scrap
1949 Total	305,614	180,227	10,879	496,720	318,736	177,984
1950 Total	303,833	204,427	13,738	521,998	333,700	188,298
1951 Total	300,665	243,152	11,041	554,853	330,361	224,487
1952 Total	313,374	243,836	14,629	571,839	347,646	224,193
1953						
May	17,727	13,951	1,211	32,889	14,779	18,100
June	16,483	14,856	1,027	32,366	15,416	16,950
July	16,187	13,788	898	30,873	14,698	16,175
August	16,097	11,109	463	27,669	22,973	4,696
September	20,947	17,765	737	39,449	29,437	10,012
October	23,618	19,323	801	43,742	32,615	11,127
November	22,285	19,148	784	42,217	31,118	11,099
December	22,952	18,502	779	42,233	32,570	9,663
Total	243,717	192,337	11,206	447,260	322,311	124,949
1954						
January	23,421	18,520	961	42,902	35,344	7,558
February	22,304	19,322	1,041	42,667	31,951	10,716
March	26,049	21,361	1,197	48,607	37,382	11,225
April	23,570	18,542	1,110	43,222	30,938	12,284
May	26,363	20,826	1,210	48,399	37,339	11,060
June	27,893	20,423	1,158	49,474	37,109	12,365
July	23,100	18,082	1,235	42,417	29,644	12,773

## U. K. Zinc Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

1954

	May	June	July
(Gross Weight)			
Zinc ore and conc.	14,216	35,969	17,879
Australia	5,126	24,403	16,761
Canada	...	7,488	...
Other countries	9,090	4,078	1,118
Zinc conc.†	8,283	15,121	†
Australia	7,787	12,004	...
Canada	...	1,350	...
Burma	496	1,767	...
Zinc and zinc alloys	13,327	12,325	12,556
Zinc or spelter, unwrought, in ingots, blocks, bars, slabs and cakes	13,277	12,296	12,530
Other	50	29	26
N. Rhodesia	906	850	333
Australia	800	2,451	1,000
Canada	6,237	4,991	6,108
Belgium	2,799	1,266	2,531
Germany (W.)	...	3	6
Netherlands	631	385	21
Norway	300	...	252
United States	1,302	1,949	1,350
Other countries	352	430	955
Total	13,327	12,325	12,556

† British Bureau of Non-Ferrous Metal Statistics. The estimated zinc content is not the content of the gross weights as officially reported for any comparable period.

‡ Not yet available.

## Zinc Imports and Exports by Principal Countries

(A.B.M.S.)

Reported in slabs, blocks, etc.; metric tons except where otherwise noted.

IMPORTS

	Apr.	May	June
1954			
U. S. (s.t.)	14,397	10,139	14,559
Canada (s.t.)	...	2	...
Belgium	407	...	...
Denmark	793	797	417
France	604	1,338	1,779
Germany†	4,213	3,649	4,239
Italy	214	476	...
Netherlands	775	1,752	...
Sweden	2,311	2,308	2,203
Switzerland†	1,865	1,129	1,401
U. K. (l.t.)	15,008	13,327	12,325
India (l.t.)	2,532	2,279	3,107

EXPORTS

	Apr.	May	June
1954			
U. S. (s.t.)	731	862	1,058
Canada (s.t.)	17,926	13,926	15,654
Belgium	10,169	...	...
Denmark	35	128	25
France	106	120	121
Germany†	798	767	693
Italy	1,200	1,107	...
Netherlands	647	1,300	...
Norway	2,085	...	...
Switzerland†	599	464	351
U. K.† (l.t.)	320	326	269
N. Rhodesia (l.t.)	2,239	2,769	1,941
Australia (l.t.)	2,110	...	...
Belgian Congo	3,019	...	...

† Includes scrap.

‡ Includes manufactures.

## United Kingdom Tin Statistics

(British Bureau of Non-Ferrous Metal Statistics)

TIN CONTENT OF TIN IN ORE

TIN METAL

	Imports	Production*	Consumption**	Stock at end of period*	Imports	Production*	Consumption**	Exports & Re-exports	Stock at end of period
1952									
Year	28,836	954	29,350	2,364	2,685	29,521	22,555	21,721	4,225
1953									
May	3,598	95	2,450	4,351	86	2,410	1,351	1,152	3,645
June	2,440	136	3,100	3,651	10	2,895	1,519	1,332	3,511
July	2,891	85	3,300	3,328	22	3,289	1,328	1,730	3,749
August	2,945	44	2,650	3,782	20	2,611	1,177	2,196	3,511
September	2,720	98	3,100	3,388	7	2,893	1,820	2,195	3,269
October	2,151	99	2,850	2,769	35	2,667	1,680	1,379	3,157
November	1,812	80	2,550	2,228	50	2,521	1,541	926	3,081
December	2,639	83	2,350	2,450	25	2,249	1,768	823	3,085
Year	28,902	1,103	29,900	2,450	1,038	28,860	18,634	14,450	3,085
1954									
January	1,738	75	2,800	1,444	10	2,718	1,663	652	3,530

\*As reported by International Tin Study Group. Production of Tin Metal includes production from imported scrap and residues refined on toll. Stocks exclude strategic stock but include official warehouse stocks. \*\*Own estimates.



## Canada's Copper Output

(Dominion Bureau of Statistics)

(Refined Copper) (In Tons)				
	1951	1952	1953	1954
Jan.	20,870	20,364	21,830	15,001
Feb.	18,342	18,901	21,075	13,954
Mar.	20,564	20,480	22,432	21,075
Apr.	20,347	20,363	21,747	20,412
May	22,731	20,548	20,179	23,012
June	21,315	20,274	18,384	.....
July	20,142	14,196	19,996	.....
Aug.	21,740	9,396	19,886	.....
Sept.	18,624	10,323	16,777	.....
Oct.	21,260	12,761	17,675	.....
Nov.	19,195	11,282	17,101	.....
Dec.	20,336	17,432	18,703	.....
Year	245,466	196,320	235,787	.....

## Canada's Lead Exports

(Dominion Bureau of Statistics)

(In Pigs) (In Tons)				
	1951	1952	1953	1954
Jan.	10,081	8,136	11,212	6,170
Feb.	6,527	9,702	8,710	7,560
Mar.	10,873	10,851	14,943	11,092
Apr.	8,537	10,450	14,765	9,606
May	14,813	11,020	7,039	11,483
June	5,756	10,466	13,434	12,018
July	5,795	10,249	1,537	.....
Aug.	4,894	10,642	8,869	.....
Sept.	6,944	14,121	3,903	.....
Oct.	8,660	13,193	7,532	.....
Nov.	12,929	12,703	6,581	.....
Dec.	9,927	8,208	4,354	.....
Year	105,736	129,741	102,879	.....

## Canada's Silver Exports

(Dominion Bureau of Statistics)

(In ores and concentrates) (Fine Ounces)			
	1952	1953	1954
Jan.	172,826	522,073	547,951
Feb.	144,635	218,421	567,225
Mar.	154,163	263,650	849,502
Apr.	280,130	311,141	572,059
May	222,133	419,569	660,724
June	273,447	323,913	682,906
July	380,190	614,320	.....
Aug.	277,597	533,155	.....
Sept.	209,566	527,771	.....
Oct.	928,483	1,015,012	.....
Nov.	353,841	463,667	.....
Dec.	149,437	473,826	.....
Year	3,546,448	5,686,518	.....

## Canada's Copper Exports

(Dominion Bureau of Statistics)

(Ingots, bars, slabs and billets) (In Tons)				
	1951	1952	1953	1954
Jan.	8,081	9,237	7,668	9,081
Feb.	6,600	4,947	16,411	8,385
Mar.	7,388	11,104	10,578	11,671
Apr.	12,336	10,948	11,153	11,218
May	6,940	11,355	14,726	18,407
June	8,115	8,178	15,053	.....
July	9,160	7,815	13,939	.....
Aug.	6,503	13,739	7,272	.....
Sept.	8,010	10,908	8,139	.....
Oct.	6,968	11,040	8,957	.....
Nov.	3,387	10,004	9,062	.....
Dec.	13,343	4,500	9,036	.....
Year	101,831	113,675	131,994	.....

## Canada's Zinc Output

(Dominion Bureau of Statistics)

(Refined Zinc) (In Tons)				
	1951	1952	1953	1954
Jan.	18,244	19,242	18,370	17,155
Feb.	16,710	17,411	18,677	15,199
Mar.	18,138	18,953	20,693	16,550
Apr.	17,484	19,415	20,003	16,249
May	18,116	18,786	20,090	16,530
June	18,222	18,728	20,589	17,017
July	18,232	19,411	21,595	.....
Aug.	18,352	18,924	21,703	.....
Sept.	17,956	18,230	21,157	.....
Oct.	17,786	19,754	21,888	.....
Nov.	18,683	16,114	21,051	.....
Dec.	20,271	18,232	21,899	.....
Year	219,194	222,200	247,707	.....

## Canada's Silver Output

(Dominion Bureau of Statistics)

(In Ounces)			
	1952	1953	1954
Jan.	1,803,848	2,459,531	2,553,293
Feb.	2,022,126	2,255,113	2,050,440
Mar.	2,085,986	2,458,022	2,314,392
Apr.	2,521,864	3,076,852	2,700,315
May	2,274,279	2,520,180	2,507,702
June	1,907,137	2,538,663	2,748,105
July	1,831,089	2,353,542	.....
Aug.	2,214,798	2,029,346	.....
Sept.	1,817,435	2,067,294	.....
Oct.	1,857,118	2,097,630	.....
Nov.	2,421,617	2,207,170	.....
Dec.	2,464,930	2,361,452	.....
Year	25,222,227	28,424,795	.....

## Canada's Lead Output

(Dominion Bureau of Statistics)

(Recoverable Lead)* (In Tons)				
	1951	1952	1953	1954
Jan.	16,099	15,271	19,502	17,716
Feb.	12,001	11,072	16,888	16,863
Mar.	12,632	15,522	14,183	17,104
Apr.	10,063	14,547	18,640	19,452
May	11,126	13,770	16,120	19,953
June	13,811	11,172	15,302	18,988
July	11,017	11,460	11,969	.....
Aug.	13,797	13,605	13,864	.....
Sept.	11,899	14,488	14,335	.....
Oct.	15,052	16,641	16,327	.....
Nov.	14,785	12,884	19,433	.....
Dec.	15,562	18,406	19,273	.....
Year	158,231	168,842	195,836	.....

\* New base bullion from Canadian ores plus recoverable lead in ores or concentrates shipped for export.

## Canada's Zinc Exports

(Dominion Bureau of Statistics)

(Slabs in Tons)				
	1951	1952	1953	1954
Jan.	13,277	9,209	17,478	16,625
Feb.	4,602	17,639	13,580	11,328
Mar.	12,185	21,839	18,307	18,199
Apr.	14,014	18,205	17,068	17,926
May	13,776	12,514	15,595	13,926
June	14,337	14,393	14,919	15,654
July	13,597	12,800	10,068	.....
Aug.	11,669	10,040	8,594	.....
Sept.	10,435	12,594	9,423	.....
Oct.	16,370	11,454	11,862	.....
Nov.	12,371	14,135	10,685	.....
Dec.	12,500	12,042	10,809	.....
Year	146,133	166,864	158,388	.....

## Canada's Nickel Output

(Dominion Bureau of Statistics)

(In Tons)				
	1951	1952	1953	1954
Jan.	10,993	11,813	12,446	12,670
Feb.	9,702	10,719	10,612	11,795
Mar.	11,676	12,381	12,218	13,502
Apr.	10,603	12,318	11,791	12,931
May	12,528	12,413	11,560	13,364
June	11,889	12,563	11,647	.....
July	11,828	10,426	11,751	.....
Aug.	12,304	11,975	11,681	.....
Sept.	11,682	10,982	11,981	.....
Oct.	11,758	11,773	12,419	.....
Nov.	11,570	11,381	12,714	.....
Dec.	11,370	11,815	11,996	.....
Year	137,903	140,559	143,016	.....

## Canadian Copper Exports

(Dominion Bureau of Statistics)

(A.B.M.S.)  
(In tons of 2,000 lbs.)

	1954		
	Apr.	May	June
Ore, matte, regulus, etc. (content) .....	2,883	3,565	6,380
United States ..	2,061	2,371	4,027
Germany (W.) ..	...	379	725
Norway .....	729	724	1,537
U. Kingdom ..	93	91	91
Ingot, bars, billets .....	11,218	18,407	14,877
United States ..	4,555	5,300	5,517
Brazil .....	850	671	281
France .....	392	662	662
Germany (W.) ..	...	95	140
U. Kingdom ..	5,421	11,679	8,277
Total Exports:			
Crude & refined ..	14,101	21,972	21,257
Old and scrap ..	595	1,086	931
Rods, strips, sheet and tubing ..	533	739	1,127

## Canadian Lead Exports

(Dominion Bureau of Statistics)

(A.B.M.S.)  
(In tons of 2,000 lbs.)

	1954		
	Apr.	May	June
Ore (lead content) .....	3,464	5,036	8,035
United States ..	3,464	4,247	3,659
Belgium .....	...	...	1,890
Germany .....	...	789	2,486
Refined lead ..	9,606	11,483	12,017
United States ..	5,727	5,525	7,721
Cuba .....	...	1	...
Brazil .....	127	85	124
U. Kingdom ..	3,472	5,740	4,172
Japan .....	280	131	...
Other countries ..	...	1	...
Total Exports:			
Ore & refined ..	13,070	16,519	20,052
Pipe & tubing ..	3	6	2
Lead scrap .....	...	95	1

## Canadian Zinc Exports

(Dominion Bureau of Statistics)

(A.B.M.S.)  
(In tons of 2,000 lbs.)

	1954		
	Apr.	May	June
Ore (zinc content) .....	11,188	12,078	19,496
United States ..	11,188	12,078	12,460
Belgium .....	...	...	479
France .....	...	...	1,787
U. Kingdom ..	...	...	4,770
Slab zinc .....	17,926	13,926	15,654
United States ..	9,544	8,581	10,625
Brazil .....	...	...	44
U. Kingdom ..	8,290	5,345	4,985
Korea .....	92	...	...
Total Exports:			
Ore and spelter ..	29,114	26,004	35,150
Zinc scrap, dross, ashes ..	157	734	445
United States ..	...	48	...
Belgium .....	117	563	397
Germany (W.) ..	14	79	48
Japan .....	...	28	...
India .....	26	16	...

## Copper Imports and Exports by Principal Countries

(A.B.M.S.)

Reported in ingots, slabs, etc.; metric tons except where otherwise noted.

IMPORTS

	1954		
U. S. (blist., s.t.) ..	14,160	21,568	21,085
(ref., s.t.) .....	11,253	14,174	19,856
Belgium† .....	23,560	16,905	...
Denmark .....	16	165	424
France (crude) ..	922	813	813
(refined) .....	9,237	11,332	8,416
Italy .....	11,027	9,221	...
Germany .....	11,829	12,769	...
Netherlands ..	2,682	913	...
Norway .....	185	300	...
Sweden .....	5,734	5,585	6,144
Switzerland ..	1,905	1,505	1,946
U. K. (l.t.) .....	29,170	33,514	35,276
India (ref., l.t.) ..	600	674	2,726

EXPORTS

U. S. (ref., s.t.) ..	12,358	20,142	22,606
Canada (ref., s.t.) ..	11,671	11,218	18,407
Belgium† .....	13,433	13,358	...
Denmark .....	20	...	...
Finland† .....	262	50	238
Germany .....	3,685	3,964	...
Norway .....	1,085	1,263	...
Sweden .....	1,053	1,697	2,401
U. K. (l.t.) .....	2,226	2,146	3,348
Belg. Congo* ..	18,972	17,896	...
N. Rhodesia (ref. & blist., l.t.) ..	24,400	39,511	26,666

† Includes copper alloys.

‡ Includes old.

\* Copper wire bars and ingot bars 99% and copper ingots 97%.

## French Zinc Imports

(A.B.M.S.)

(In metric tons)

	1954		
	May	June	July
Ore (gross weight) .....	28,226	11,402	18,544
Canada .....	...	...	2,778
Peru .....	2,500	...	...
Belgium .....	2,003	1,021	...
Germany (W.) ..	...	...	250
Greece .....	...	...	1,748
Italy .....	1,857	1,051	204
Spain .....	3,921	2,678	...
Algeria .....	2,215	2,856	4,384
Fr. Morocco ..	10,918	508	4,925
Tunisia .....	...	1,214	421
Australia .....	4,812	2,074	3,834
Slabs, bars, blocks, etc. ...	1,338	1,779	722
United States ..	...	...	51
Mexico .....	...	...	25
Belgium .....	803	1,683	645
Germany (W.) ..	25	...	...
Italy .....	475	70	...
Norway .....	...	19	...
U. Kingdom ..	...	1	1
Algeria .....	35	6	...

## U. K. Copper Exports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1954		
	May	June	July
(Gross Weight)			
Copper unwrought, ingots, blocks, slabs, bars, etc. ..	3,348	2,318	2,313
Plates, sheets, rods, etc. ....	1,251	1,808	1,983
Wire (including uninsulated electric wire) ..	306	397	334
Tubes .....	517	431	473
Other copper, worked (incl. pipe fittings) ..	66	29	49
Total .....	5,488	4,983	5,502

## French Copper Imports

(A.B.M.S.)

(In metric tons)

	1954		
	May	June	July
Crude copper for refining (blister, black and cement) .....	813	1,051	2,813
Belg. Congo ..	813	51	813
U. of S. Africa ..	...	1,000	2,000
Refined .....	8,416	9,166	13,501
United States ..	1,958	3,028	2,618
Canada .....	355	600	750
Peru .....	635	263	468
Belgium .....	2,888	1,701	3,905
Germany (W.) ..	10	51	70
Norway .....	27	175	...
Sweden .....	9	2	23
U. Kingdom ..	287	194	565
Belg. Congo ..	1,551	1,637	4,734
Other Br. Africa (East Coast) ..	668	1,427	341
Other countries ..	28	88	27
Total Imports			
Crude & refined ..	9,229	10,217	16,314

## French Metal Exports

(A.B.M.S.)

(In metric tons)

	1954		
	May	June	July
Lead:			
Ore (gross weight) .....	11	37	15
Pig lead:			
Non-argenti-ferous .....	4,807	603	881
Antimonial lead ..	22	91	25
Zinc:			
Slabs, bars, blocks, etc. ...	120	121	93
Copper:			
Crude copper for refining (blister, black and cement) .....	...	...	1,030

## Nonferrous Castings

### MONTHLY SHIPMENTS, BY TYPE OF METAL

(Bureau of Census — Thousands of Pounds)

	Alu- minum	Copper	Mag- nesium	Zinc	Lead Die
1949 Total	304,409	724,053	9,364	377,779	9,101
1950 Total	543,082	1,056,973	15,224	579,332	20,977
1951 Total	515,131	1,197,443	30,825	487,996	25,936
1952					
December	53,343	90,799	3,110	42,148	1,648
Total	518,979	1,009,910	34,857	408,353	20,941
1953					
January	55,921	85,519	3,112	46,119	1,939
February	54,988	85,674	3,274	46,723	1,645
March	59,208	93,183	3,403	51,540	1,912
April	61,461	94,063	3,332	51,301	1,979
May	57,340	84,550	2,705	44,174	1,792
June	56,492	83,947	3,063	48,806	1,777
July	51,196	69,597	2,287	39,968	1,506
August	50,428	77,652	2,490	37,800	1,806
September	53,306	79,595	2,455	38,611	1,743
October	55,097	83,899	3,024	40,882	1,709
November	51,014	74,782	2,681	37,688	1,405
December	51,579	77,675	2,691	38,661	1,231
Total	658,022	990,496	34,517	521,253	20,444
1954					
January	51,446	71,437	2,451	40,396	1,514
February	51,213	68,849	2,194	37,660	1,303
March	56,184	76,480	2,407	42,991	1,335
April	53,006	72,900	2,068	38,968	1,559
May	47,663	67,859	1,738	36,793	1,529
June	48,061	70,777	2,034	40,708	1,712

\*Computed on new basis as of October, 1952.

## Copper Castings Shipments

### BY TYPE OF CASTING

(Bureau of Census)

(Thousands of Pounds)

	Total	Sand	Permanent Mold	Die	All Other
1949 Total	724,053	654,444	37,311	8,817	23,481
1950 Total	1,015,679	918,883	52,766	13,224	30,816
1951 Total	1,197,443	1,075,437	69,883	12,516	39,607
1952 Total	1,009,910	910,862	63,865	8,259	26,924
1953					
April	94,063	85,171	5,463	893	2,536
May	84,550	76,239	4,856	895	2,560
June	83,947	75,625	4,705	872	2,745
July	69,957	63,365	3,927	692	1,973
August	77,652	69,852	4,890	854	2,056
September	79,595	71,184	5,273	840	2,298
October	83,899	74,460	5,775	853	2,811
November	74,782	66,370	5,077	757	2,578
December	77,675	68,821	5,082	818	2,854
Total	990,496	888,369	61,316	10,077	30,734
1954					
January	71,437	63,034	4,618	816	2,969
February	68,849	60,913	4,743	758	2,435
March	76,480	67,952	5,123	875	2,530
April	72,900	65,418	4,732	377	2,373
May	67,859	61,469	3,755	318	2,317
June	70,777	64,328	3,567	456	2,426

\*Computed on new basis as of October, 1952.

## Nickel Averages

Electro, cathode sheets, 99.00%,  
f.o.b. refinery, duty included  
(cents per pound)

	1951	1952	1953	1954
Jan.	50.50	56.50	58.62	60.00
Feb.	50.50	56.50	60.00	60.00
Mar.	50.50	56.50	60.00	60.00
Apr.	50.50	56.50	60.00	60.00
May	50.50	56.50	60.00	60.00
June	56.27	56.50	60.00	60.00
July	56.50	56.50	60.00	60.00
Aug.	56.50	56.50	60.00	60.00
Sept.	56.50	56.50	60.00	....
Oct.	56.50	56.50	60.00	....
Nov.	56.50	56.50	60.00	....
Dec.	56.50	56.50	60.00	....
Av.	53.98	56.50	59.885	....

## Platinum Averages

N. Y. MONTHLY QUOTATIONS  
(Dollars per Troy Ounce)

	1951	1952	1953	1954
Jan.	91.50	91.50	91.50	91.40
Feb.	91.50	91.50	91.50	91.00
Mar.	91.50	91.50	91.50	87.88
Apr.	91.50	91.50	91.50	85.50
May	91.50	91.50	91.50	85.50
June	91.50	91.50	92.81	85.50
July	91.50	91.50	94.00	85.50
Aug.	91.50	91.50	94.00	85.50
Sept.	91.50	91.50	92.50	....
Oct.	91.50	91.50	92.50	....
Nov.	91.50	91.50	92.50	....
Dec.	91.50	91.50	92.15	....
Av.	91.50	91.50	92.496	....

## Prompt Tin Prices

(Straits, Open Market, N. Y.)

### Monthly Average Prices

(cents per pound)

	1951	1952	1953	1954
Jan.	171.74	109.727†	121.50	84.84
Feb.	182.68	121.50†	121.50	85.04
Mar.	146.035†	121.50†	121.415	91.24
Apr.	145.95†	121.50†	101.07	96.238
May	139.954†	121.50†	97.387	93.51
June	118.048†	121.50†	92.933	94.24
July	106.00†	121.50†	81.826	96.55
Aug.	103.00†	121.50†	80.69	93.381
Sept.	103.00†	121.375	82.275	....
Oct.	103.00†	121.228	80.897	....
Nov.	103.00†	121.25	83.26	....
Dec.	103.00†	121.465	84.693	....
Av.	127.12	(A)	95.787	....

†RFC Prompt Grade A from March 18, 1951.

(A) RFC 1952 average price, 120.619c.  
Average Open Market Price, last four months  
of 1952, 121.344c.

## Monthly Tin Production at Longhorn Smelter

(From Concentrates)

(In tons of 2,240 pounds)

	1951	1952	1953	1954
Jan.	3,211	1,802	4,000	2,700
Feb.	3,096	1,800	3,400	3,008
Mar.	3,036	1,800	3,850	3,559
Apr.	3,058	1,800	3,750	3,006
May	3,059	1,800	3,100	2,054
June	2,655	NIL	3,000	1,205
July	2,406	NIL	3,000	NIL
Aug.	2,543	NIL	2,600	2,002
Sept.	2,155	2,450	2,700	....
Oct.	2,091	3,364	2,751	....
Nov.	1,806	4,020	2,750	....
Dec.	1,805	3,705	2,750	....
Total	30,921	22,541	37,651	....

## Quicksilver Averages

N. Y. Monthly Averages

Virgin, Dollars per 76-lb. Flask

	1951	1952	1953	1954
Jan.	199.18	209.19	214.88	189.60
Feb.	218.05	201.74	207.37	190.00
Mar.	216.92	207.74	199.92	201.63
Apr.	217.14	205.08	197.90	221.36
May	214.462	200.81	196.50	251.20
June	211.00	196.38	193.42	273.46
July	207.46	192.154	192.21	287.40
Aug.	199.24	188.115	190.42	290.71
Sept.	208.65	190.76	187.04	....
Oct.	220.02	194.00	184.62	....
Nov.	217.87	202.64	186.00	....
Dec.	214.92	215.30	188.38	....
Av.	212.08	200.50	194.89	....



# Primary Aluminum Output, Shipments and Stocks

(U. S. Department of Interior)

	Stocks beginning of month short tons	Production short tons	Short tons	Sold or Used Value f. o. b. plant	Stocks end of month short tons
1953					
July .....	17,810	109,285	109,247	43,039,447	17,848
August .....	17,848	110,545	104,015	41,156,603	24,378
September .....	24,378	109,333	106,720	42,916,029	26,991
October .....	26,991	108,219	113,420	45,733,162	21,790
November .....	21,790	105,636	97,374	39,304,264	30,052
December .....	30,052	110,291	101,024	40,681,905	39,317
1954					
January .....	39,319	116,247	112,831	45,540,192	42,735
February .....	42,735	110,483	94,724	38,110,318	58,494
March .....	58,494	122,339	117,587	47,220,513	63,246
April .....	63,246	120,434	120,786	48,598,623	62,894
May .....	62,894	125,138	115,838	46,534,504	72,194
June .....	72,194	120,758	124,914	50,460,097	68,038
July .....	68,038	126,161	118,578	47,659,340	75,621

## Aluminum Wrought Products PRODUCERS' MONTHLY NET SHIPMENTS (Bureau of Census — Thousands of Pounds)

	Total	Plate, Sheet, & Strip	Rolled Structural Shapes, Rod, Bar & Wire	Extruded Shapes Tubs Blooms & Tubing	Powder, Flake, & Paste
1948 Total .....	1,640,206	1,268,297	182,991	171,964	16,954
1949 Total .....	1,158,146	790,025	203,650	149,995	14,476
1950 Total .....	1,713,449	1,163,135	269,780	258,075	22,459
1951 Total .....	1,756,244	1,073,367	345,163	312,944	24,770
1952 Total .....	1,924,750	1,085,699	443,546	347,542	47,963
1953					
February .....	186,155	109,154	36,492	36,579	3,930
March .....	214,871	127,083	42,062	41,366	4,360
April .....	220,025	129,172	46,490	40,697	3,666
May .....	209,667	123,616	41,725	40,628	3,698
June .....	205,585	121,219	40,258	41,224	2,884
July .....	202,796	123,429	37,453	39,273	2,641
August .....	191,007	117,826	32,180	37,623	3,378
September .....	184,143	111,807	33,295	35,597	3,444
October .....	186,056	113,589	29,168	38,720	4,579
November .....	148,894	89,383	24,041	31,590	3,880
December .....	149,221	91,162	23,187	30,709	4,163
Total .....	2,286,865	1,368,165	422,046	451,922	44,732
1954					
January .....	153,920	84,293	31,600	34,576	3,451
February .....	145,335	80,505	29,577	31,583	3,664
March .....	170,010	92,955	32,698	38,928	5,429
April .....	174,176	96,893	33,637	39,246	4,420
May .....	168,678	94,886	21,197	40,981	3,514
June .....	184,205	102,026	31,299	46,146	4,734
July .....	169,988	94,656	28,444	43,045	3,843

## Aluminum Castings Shipments

(Bureau of Census)

### BY TYPE OF CASTING

		(Thousands of Pounds)		Permanent			All
		Total	Sand	Mold	Die	Other	
1949	Total .....	351,778	122,604	123,523	93,340	7,311	
1950	Total .....	543,082	184,782	181,366	167,201	9,733	
1951	Total .....	515,131	193,378	160,011	151,465	10,277	
1952	Total .....	518,979	194,616	146,883	169,732	7,748	
1953							
March	.....	59,208	19,047	17,912	21,935	314	
April	.....	61,461	20,158	16,628	22,305	370	
May	.....	57,340	19,639	16,528	20,858	315	
June	.....	56,492	19,349	15,528	21,335	280	
July	.....	51,196	16,614	15,692	18,549	341	
August	.....	50,428	15,940	16,252	17,837	399	
September	.....	53,306	17,826	17,189	17,857	416	
October	.....	55,097	17,171	17,030	20,547	349	
November	.....	51,014	16,169	15,396	19,012	437	
December	.....	51,579	15,265	16,907	18,963	436	
	Total .....	658,022	214,553	200,025	239,330	4,114	
1954							
January	.....	51,446	14,698	16,615	19,709	424	
February	.....	51,213	14,696	17,281	18,754	482	
March	.....	56,184	14,468	19,576	21,645	495	
April	.....	53,006	14,073	18,091	20,366	476	
May	.....	47,663	12,461	16,312	18,368	522	
June	.....	48,061	12,442	17,105	17,886	628	

\*Computed on new basis as of October, 1952.

# Virgin Aluminum

Virgin 99% Delivered

## Monthly Average Prices (Cents per pound)

	1951	1952	1953	1954
Jan. 19.00	19.00	20.173	21.50	
Feb. 19.00	19.00	20.50	21.50	
Mar. 19.00	19.00	20.50	21.50	
Apr. 19.00	19.00	20.50	21.50	
May 19.00	19.00	20.50	21.50	
June 19.00	19.00	20.50	21.50	
July 19.00	19.00	20.962	21.50	
Aug. 19.00	19.846	21.50	22.12	
Sept. 19.00	20.00	21.50	....	
Oct. 19.00	20.00	21.50	....	
Nov. 19.00	20.00	21.50	....	
Dec. 19.00	20.00	21.50	....	
Av. 19.00	19.404	20.928	....	

## Magnesium Wrought Products Shipments (Bureau of Census)

(Thousands of Pounds)

	1951	1952	1953	1954
Jan. .. 1,522	1,635	1,313	972	
Feb. .. 1,489	1,748	1,454	1,058	
Mar. . 1,889	1,712	1,601	1,136	
Apr. .. 1,531	1,745	1,708	892	
May .. 1,716	1,804	1,699	1,129	
June . 1,643	1,428	1,192	1,312	
July .. 1,391	1,390	1,589	1,032	
Aug. . 1,497	1,438	1,433	....	
Sept. . 1,461	1,305	1,254	....	
Oct. .. 1,773	1,408	1,409	....	
Nov. . 1,645	1,178	1,314	....	
Dec. .. 1,533	1,440	919	....	
Total .19,090	18,249	16,885	....	

Total .12,810 19,090 18,249 16,885

## Cadmium Averages

N. Y. Monthly Averages

Cents per lb. in ton lots

	1951	1952	1953	1954
Jan. 255.00	255.00	193.00	200.00	
Feb. 255.00	255.00	200.00	170.00	
Mar. 255.00	255.00	200.00	170.00	
Apr. 255.00	255.00	200.00	170.00	
May 255.00	237.00	200.00	170.00	
June 255.00	225.00	200.00	170.00	
July 255.00	225.00	200.00	170.00	
Aug. 255.00	200.00	200.00	170.00	
Sept. 255.00	200.00	200.00	....	
Oct. 255.00	200.00	200.00	....	
Nov. 255.00	200.00	200.00	....	
Dec. 255.00	179.81	200.00	....	
Av. 255.00	223.90	199.44	....	

# Steel Ingot Production

(American Iron and Steel Institute)

Period	Estimated Production — All Companies				Calculated weekly production, all companies (net tons)	
	OPEN HEARTH	BESSEMER	ELECTRIC	TOTAL	Per cent of capacity	Per cent of capacity
	Net tons of capacity	Net tons of capacity	Net tons of capacity	Net tons of capacity		
1949 Total	70,227,775	82.8	3,946,656	76.0	3,693,922	80.4
1950 Total	86,262,509	98.7	4,534,558	81.3	6,039,008	86.5
1951 Total	93,146,625	102.3	4,890,946	87.0	7,096,982	93.9
1952 Total	82,846,439	87.2	3,523,677	65.5	6,797,923	82.6
1953						
April	8,493,909	100.5	334,605	87.7	717,024	85.2
May	8,925,163	102.3	354,577	90.0	717,340	82.5
June	8,394,502	99.4	332,060	87.0	677,917	80.5
July	8,316,342	95.5	324,068	82.4	635,263	73.2
August	8,463,155	97.0	310,074	78.7	632,351	72.7
September	8,076,277	95.8	287,638	75.6	519,513	61.9
October	8,648,428	99.1	325,250	82.6	489,044	56.3
November	8,002,849	94.7	283,321	74.3	404,382	48.0
December	7,321,947	84.1	269,813	68.6	354,565	40.9
Total	100,473,823	97.9	3,865,705	83.2	7,280,191	71.1
1954						
January	7,256,526	78.3	260,453	64.0	434,507	48.9
February	6,523,213	77.9	174,523	47.4	385,771	48.1
March	6,649,667	71.7	207,726	51.1	432,207	48.3
April	6,365,326	70.9	162,657	41.3	442,954	51.5
May	6,817,951	73.6	158,063	48.7	456,724	51.4
June	6,702,006	74.7	219,666	52.7	453,962	52.8
July	6,040,120	65.3	235,313	50.6	382,164	43.1
Aug.	6,023,000	65.0	218,090	53.6	420,000	47.3

# Steel Ingot Operations

(Percentage of Capacity as Reported by

(American Iron & Steel Institute)

Week

Beginning 1951 1952 1953 1954

Jan. 4...	99.1	102.1	98.2	75.4
Jan. 11...	99.6	98.7	99.3	74.3
Jan. 18...	100.9	99.4	99.7	74.1
Jan. 25...	101.3	100.1	99.4	75.6
Feb. 1...	96.7	100.6	97.7	74.4
Feb. 8...	98.5	100.1	99.7	74.4
Feb. 15...	99.5	100.6	99.1	74.6
Feb. 22...	99.8	100.9	99.4	73.6
Mar. 1...	101.0	101.3	100.3	70.7
Mar. 8...	100.1	101.8	101.3	69.3
Mar. 15...	101.1	102.4	101.5	67.6
Mar. 22...	103.5	102.6	103.1	68.1
Mar. 29...	102.4	102.1	97.1	69.1
Apr. 5...	102.3	62.3	98.9	68.0
Apr. 12...	102.9	97.0	98.8	68.0
Apr. 19...	103.3	100.4	101.0	68.6
Apr. 26...	104.0	52.1	100.3	68.7
May 3...	103.7	83.0	100.2	69.4
May 10...	103.9	100.3	100.3	70.9
May 17...	103.6	101.3	99.8	71.8
May 24...	102.7	102.3	100.3	71.2
May 31...	103.2	38.7	99.6	70.2
June 7...	103.2	12.5	97.9	73.2
June 14...	103.2	11.8	96.8	72.3
June 21...	102.8	12.3	96.8	72.1
June 28...	100.8	13.3	91.8	65.8
July 5...	101.5	14.2	92.8	60.0
July 12...	101.9	15.1	94.7	64.3
July 19...	101.4	15.3	94.4	65.3
July 26...	101.5	42.9	92.6	64.2
Aug. 2...	101.1	89.9	94.0	64.0
Aug. 9...	101.5	93.3	95.2	64.0
Aug. 16...	100.4	97.1	95.9	61.8
Aug. 23...	99.8	98.7	93.4	63.5
Aug. 30...	98.3	98.9	90.5	64.0
Sept. 6...	100.0	100.8	89.2	63.0
Sept. 13...	101.2	102.1	91.4	66.3
Sept. 20...	102.1	104.0	95.1	66.6
Sept. 27...	102.6	105.7	95.3	....
Oct. 4...	101.8	106.6	95.2	....
Oct. 11...	102.1	105.8	96.3	....
Oct. 18...	102.9	106.9	95.0	....
Oct. 25...	104.5	107.3	94.6	....
Nov. 1...	101.0	105.9	93.0	....
Nov. 8...	101.0	106.4	92.3	....
Nov. 15...	103.7	106.5	90.7	....
Nov. 22...	104.0	106.1	86.8	....
Nov. 29...	103.6	105.0	87.5	....
Dec. 6...	104.1	106.3	86.7	....
Dec. 13...	104.9	107.7	84.3	....
Dec. 20...	101.4	102.7	64.1	....
Dec. 27...	102.0	107.2	75.7	....

# Blast Furnace Output

American Iron and Steel Institute)

Period	net tons				% Capacity
	Pig Iron	Ferro-manganese & Spiegele	Total	Capacity	
1945					
Ttl. Yr.	53,464,872	712,210	54,167,082	80.5	
1946					
Ttl. Yr.	44,854,801	523,729	45,378,530	67.4	
1947					
Ttl. Yr.	58,507,169	702,561	59,209,730	90.1	
1948					
Ttl. Yr.	60,135,941	712,899	60,848,840	90.2	
1949					
Ttl. Yr.	53,613,779	592,564	54,206,343	76.8	
1950					
Ttl. Yr.	64,810,272	673,896	65,484,168	91.5	
1951					
Ttl. Yr.	70,487,380	745,381	71,232,761	98.3	
1952					
May	5,436,144	55,564	5,491,708	87.8	
June	1,065,278	12,003	1,068,281	17.6	
July	995,957	6,537	1,002,512	16.1	
Aug.	8,782,096	48,861	8,830,957	92.8	
Sept.	6,095,865	68,500	6,164,365	102.1	
Oct.	6,442,024	73,067	6,515,091	104.2	
Nov.	6,155,565	71,723	6,227,283	102.9	
Dec.	6,436,136	73,400	6,509,536	104.4	
Total	61,528,665	629,926	62,158,591	84.2	
1953					
Jan.	6,482,081	82,802	6,564,883	97.3	
Feb.	5,813,202	68,316	5,881,518	96.5	
Mar.	6,611,040	66,321	6,677,361	99.0	
Apr.	6,171,939	58,702	6,230,641	95.4	
May	6,519,082	68,033	6,587,115	97.7	
June	6,297,559	74,972	6,372,531	97.6	
July	6,436,845	80,142	6,516,987	96.8	
Aug.	6,391,749	79,805	6,471,554	96.0	
Sept.	6,132,330	69,689	6,202,019	95.2	
Oct.	6,419,752	77,958	6,497,710	96.3	
Nov.	5,999,704	62,896	6,062,600	92.8	
Dec.	5,712,938	65,902	5,778,840	85.9	
Total	74,987,721	855,038	75,842,759	95.5	
1954					
Jan.	5,516,689	63,824	5,579,513	80.1	
Feb.	4,764,613	45,941	4,810,554	76.5	
Mar.	4,907,147	52,156	4,959,303	71.2	
Apr.	4,449,289	53,277	4,502,566	66.7	
May	4,572,252	52,187	4,624,439	66.4	
June	4,683,629	40,521	4,724,150	70.0	
July	4,590,076	36,108	4,626,184	66.6	
Aug.	4,529,291	37,744	4,567,035	71.0	

# Steel Castings Shipments

(Bureau of Census)

(Short Tons) For Own Use

Period	Total		For Own Use
	Total	For Sale	
1948	1,760,032	1,335,295	424,737
1949	1,250,460	865,297	385,163
1950	1,461,667	929,192	374,217
1951	2,101,604	1,507,413	594,191
1952			
Apr.	175,075	134,325	40,750
May	173,635	132,129	41,506
June	141,628	114,410	27,218
July	119,036	97,633	21,403
Aug.	150,232	113,997	36,235
Sept.	158,392	121,402	36,990
Oct.	165,155	124,629	40,529
Nov.	148,259	110,467	37,792
Dec.	162,237	122,670	39,567
Total	1,925,116	1,476,352	448,767
1953			
Jan.	167,211	126,819	40,392
Feb.	175,675	137,592	38,083
Mar.	182,181	141,873	40,308
Apr.	179,615	140,051	39,564
May	165,649	126,380	39,269
June	164,665	125,984	38,681
July	139,577	105,687	33,890
Aug.	141,340	107,941	33,399
Sept.	135,303	102,880	32,423
Oct.	140,702	106,788	33,914
Nov.	114,088	84,945	29,143
Dec.	123,281	91,017	32,264
Total	1,829,277	1,290,016	431,330
1954			
Jan.	122,758	93,577	29,181
Feb.	116,520	88,699	27,821
Mar.	122,310	92,271	30,039
Apr.	105,788	78,754	27,034
May	94,610	70,596	24,014
June	100,022	72,881	27,141

# GALVANIZED SHEET SHIPMENTS

(American Iron & Steel Institute)

Period	(Net Tons)			
	1951	1952	1953	1954
Jan.	180,399	165,196	201,472	169,086
Feb.	146,200	152,761	183,503	167,433
Mar.	172,535	177,674	204,995	180,198
Apr.	174,129	170,583	196,656	203,312
May	177,310	182,978	189,765	201,671
June	176,498	53,947	184,862	200,456
July	161,428	56,254	185,896	214,349
Aug.	190,678	177,661	187,741	....
Sept.	157,170	201,318	194,257	....
Oct.	160,652	219,883	208,705	....
Nov.	143,044	194,712	177,391	....
Dec.	145,971	208,191	175,375	....
Total	1,984,961	1,961,158	2,290,868	....

# SHIPMENTS OF TIN-TERNE PLATE

(American Iron & Steel Institute)

Period	(Net Tons)			
	Hot Dipped	Electrolytic	1953	1954
Jan.	121,634	311,635	317,587	317,587
Feb.	105,068	267,824	297,169	297,169
Mar.	130,111	318,049	354,233	354,233
Apr.	122,291	319,386	340,838	340,838
May	122,710	336,209	461,026	461,026
June	127,570	313,595	502,466	502,466
July	102,291	302,235	162,771	162,771
Aug.	118,884	271,490	....	....
Sept.	95,060	244,718	....	....
Oct.	98,889	262,548	....	....
Nov.	84,242	218,694	....	....
Dec.	88,790	177,075	....	....
Total	1,318,080	3,343,458	....	....

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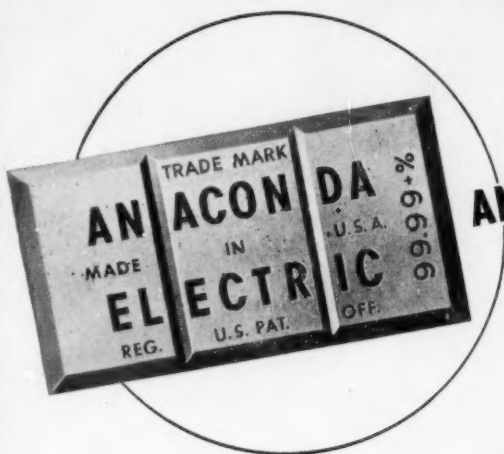
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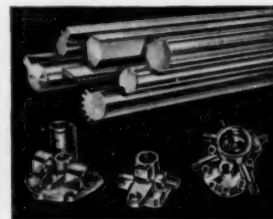
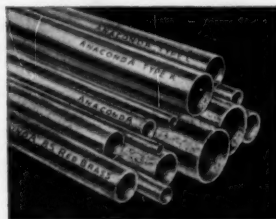
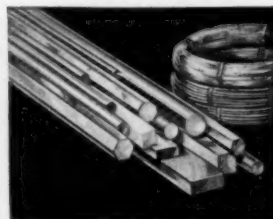
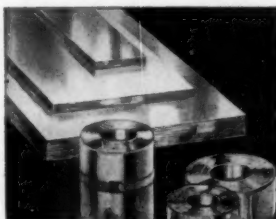
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